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WRENTMORE'S BATTER TABLES



BATTER TABLES

FOR 192 BATTERS FROM $\frac{1}{16}$ -IN, $\frac{1}{8}$ -IN, $\frac{3}{16}$ -IN, TO
12 INCHES PER FOOT

GIVING ALTITUDE AND HYPOTHENUSE
IN FEET AND DECIMALS OF FEET

FOR ANY BASE
MEASURED IN FEET, INCHES AND SIXTEENTHS

WITH A TABLE OF EQUIVALENTS OF INCHES AND FRACTIONS IN
DECIMALS OF A FOOT

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GENERAL

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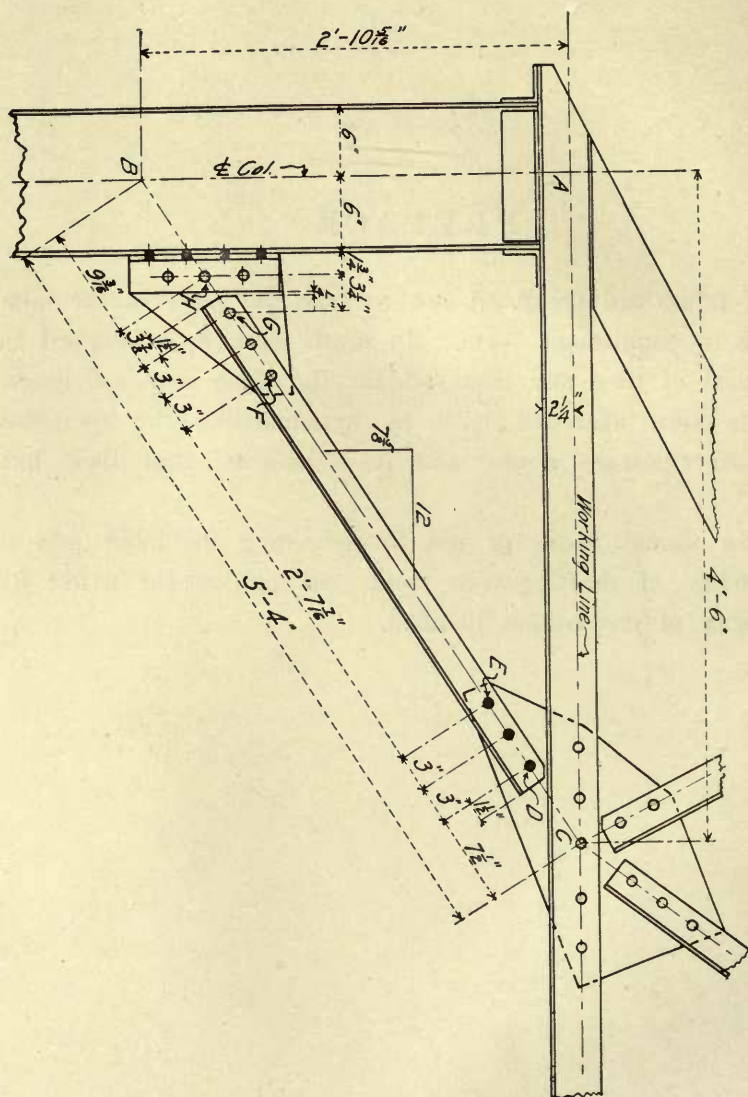
PREFACE

THE following tables are presented, not to take the place of the tables of squares and logarithms, but to supplement them. In much work it is believed that they will prove more economical of time and labor and at the same time will lessen the chances of error. Care has been exercised, both by systematizing the computation and by repeated checking, to eliminate errors, and it is believed that their number will be small.

If these tables should prove of use in lightening the labor and increasing the accuracy and reliability of drafting-room work, the aim of the writer will have been attained and the labor of preparation justified.

C. G. W.

ANN ARBOR, MICHIGAN,
June 26, 1906.





METHOD OF USING TABLES

THE use of the tables is so simple as to require little explanation. A brief example, solved in detail, will illustrate the method of application.

Given a knee brace from a column to a truss, as shown in the accompanying figure. Let $A - C = 4' - 6''$, $A - B = 2' - 10\frac{5}{16}''$. The batter may be found by dividing $2 - 10\frac{5}{16}''$ reduced to inches, or 34.3125 by 4.5, giving $7.62 = 7\frac{5}{8}$. The same result may be obtained still more easily by the use of log tables.

Turning to the table of $7\frac{5}{8}$ to 12 we obtain the length of $B - C$ as follows: The hypotenuse for a base of 40 feet is 47.3921; setting the decimal point one place to the left we obtain the hypotenuse for a base of 4 feet = 4.7392; adding to this the hypotenuse for a base of 6", which is .5924, we have 5.3316, and from the table of decimals of a foot we find this to be $5' - 3\frac{3}{8}\frac{1}{4}$, or $5' - 4''$ to the nearest sixteenth.

The rivet H is seen to be $6'' + 1\frac{3}{4} = 7\frac{3}{4}$ perpendicularly from the center of the column. This is the base of the triangle, and the corresponding hypotenuse is found from the hypotenuse table to be .7652, which is $9\frac{3}{16}'' = B - H$. The vertical distance from B to H is found from the table of altitudes under $7\frac{3}{4}''$ to be .4104 = $4\frac{5}{8}\frac{1}{4}$, or $4\frac{1}{8}\frac{5}{8}$ to the nearest sixteenth. The rivet spacing is assumed to be 3". The distance of the upper field rivet, from the top of the column, is then by simple subtraction 2 ft. $10\frac{5}{16}$ in. - $(4\frac{1}{8}\frac{5}{8} + 4\frac{1}{2} + 2\frac{1}{4} = 11\frac{1}{8}) = 1$ ft. $10\frac{5}{8}$ in.

The horizontal distance between G and H is $3\frac{1}{4}$ in. This is the base, and from the table the hypotenuse is found to be .3209 = $3\frac{3}{8}\frac{1}{2}$, which is taken as $3\frac{1}{8}$ for the nearest sixteenth. $H - F$ is $9\frac{7}{8} = .8229$. The nearest number to this in the hypotenuse table is .8207, corresponding to a base of $8\frac{1}{16}$, and from the altitude table the corresponding altitude is .4402 = $5\frac{9}{32} = 5\frac{5}{16}$ to the nearest sixteenth, which is the vertical distance of F above H . The edge distances on the plate being $1\frac{1}{2}$ the plate will have a width of $8\frac{5}{16} + 3 = 11\frac{5}{16}$, say $11\frac{1}{4}$, and a length of $1\frac{1}{2} + 5\frac{5}{16} + 3 + 3 = 1' - 0\frac{1}{8}$.

The gage on the angle $A - C$ being $2\frac{1}{4}$, the clearance $\frac{1}{4}$, and edge distance for the clip above D $1\frac{1}{2}$, we have the distance of D below the line $A - C = 4''$. This being the altitude of the triangle, we look in the altitude table for the number nearest to .3333 and find it to be .3343, corresponding to a base of $6\frac{5}{16}$, and for this base the hypotenuse is .6233, or $7\frac{3}{8}\frac{1}{4}$, say $7\frac{1}{2}$. This is the length $C - D$. The distance of E from the line $A - C$ is found as follows: $D - E$ is $6'' = .5000$; the nearest number in the hypotenuse table is .4998, corresponding to a base of $5\frac{1}{16}$, and from the altitude table the corresponding altitude is .2681 = $3\frac{7}{32}$, say $3\frac{1}{4}$, which added to $4''$ gives the required distance $7\frac{1}{4}$.

Equivalent Angle ° 53' 42"					Altitude					Batter $\frac{3}{16}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0013	.0026	.0039	.0052	.0065	.0078	.0091	.0104	.0117	.0130	.0143	10	0.1563
1	.0001	.0014	.0027	.0040	.0053	.0066	.0079	.0092	.0105	.0118	.0131	.0144	20	0.3125
2	.0002	.0015	.0028	.0041	.0054	.0067	.0080	.0093	.0106	.0119	.0132	.0145	30	0.4688
3	.0002	.0015	.0028	.0042	.0055	.0068	.0081	.0094	.0107	.0120	.0133	.0146	40	0.6250
4	.0003	.0016	.0029	.0042	.0055	.0068	.0081	.0094	.0107	.0120	.0133	.0146	50	0.7813
5	.0004	.0017	.0030	.0043	.0056	.0069	.0082	.0095	.0108	.0121	.0134	.0147	60	0.9375
6	.0005	.0018	.0031	.0044	.0057	.0070	.0083	.0096	.0109	.0122	.0135	.0148	70	1.0938
7	.0006	.0019	.0032	.0045	.0058	.0071	.0084	.0097	.0110	.0123	.0136	.0149	80	1.2500
8	.0007	.0020	.0033	.0046	.0059	.0072	.0085	.0098	.0111	.0124	.0137	.0150	90	1.4063
9	.0007	.0020	.0033	.0046	.0059	.0072	.0085	.0098	.0111	.0125	.0138	.0151	100	1.5625
10	.0008	.0021	.0034	.0047	.0060	.0073	.0086	.0099	.0112	.0125	.0138	.0151		
11	.0009	.0022	.0035	.0048	.0061	.0074	.0087	.0100	.0113	.0126	.0139	.0152		
12	.0010	.0023	.0036	.0049	.0062	.0075	.0088	.0101	.0114	.0127	.0140	.0153		
13	.0011	.0024	.0037	.0050	.0063	.0076	.0089	.0102	.0115	.0128	.0141	.0154		
14	.0011	.0024	.0037	.0050	.0063	.0076	.0090	.0103	.0116	.0129	.0142	.0155		
15	.0012	.0025	.0038	.0051	.0064	.0077	.0090	.0103	.0116	.0129	.0142	.0155		

Hypothenuse

0	.0000	.0833	.1667	.2500	.3334	.4167	.5001	.5834	.6667	.7501	.8334	.9168	10	10.0012
1	.0052	.0886	.1719	.2552	.3386	.4219	.5053	.5886	.6720	.7553	.8386	.9220	20	20.0024
2	.0104	.0938	.1771	.2604	.3438	.4271	.5105	.5938	.6772	.7605	.8439	.9272	30	30.0037
3	.0156	.0990	.1823	.2657	.3490	.4323	.5157	.5990	.6824	.7657	.8491	.9324	40	40.0049
4	.0208	.1042	.1875	.2709	.3542	.4376	.5209	.6042	.6876	.7709	.8543	.9376	50	50.0061
5	.0260	.1094	.1927	.2761	.3594	.4428	.5261	.6094	.6928	.7761	.8595	.9428	60	60.0073
6	.0313	.1146	.1979	.2813	.3646	.4480	.5313	.6147	.6980	.7813	.8647	.9480	70	70.0085
7	.0365	.1198	.2031	.2865	.3698	.4532	.5365	.6199	.7032	.7866	.8699	.9532	80	80.0098
8	.0417	.1250	.2084	.2917	.3750	.4584	.5417	.6251	.7084	.7918	.8751	.9585	90	90.0110
9	.0469	.1302	.2136	.2969	.3803	.4636	.5469	.6303	.7136	.7970	.8803	.9637	100	100.0122
10	.0521	.1354	.2188	.3021	.3855	.4688	.5522	.6355	.7188	.8022	.8855	.9689		
11	.0573	.1406	.2240	.3073	.3907	.4740	.5574	.6407	.7240	.8074	.8907	.9741		
12	.0625	.1459	.2292	.3125	.3959	.4792	.5626	.6459	.7293	.8126	.8959	.9793		
13	.0677	.1511	.2344	.3177	.4011	.4844	.5678	.6511	.7345	.8178	.9012	.9845		
14	.0729	.1563	.2396	.3230	.4063	.4896	.5730	.6563	.7397	.8230	.9064	.9897		
15	.0781	.1615	.2448	.3282	.4115	.4949	.5782	.6615	.7449	.8282	.9116	.9949		

Equivalent Angle 1° 11' 36"

Altitude

Batter $\frac{1}{4}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0017	.0035	.0052	.0069	.0087	.0104	.0122	.0139	.0156	.0174	.0191	10	0.2083
1	.0001	.0018	.0036	.0053	.0071	.0088	.0105	.0123	.0140	.0157	.0175	.0192	20	0.4167
2	.0002	.0020	.0037	.0054	.0072	.0089	.0106	.0124	.0141	.0158	.0176	.0193	30	0.6250
3	.0003	.0021	.0038	.0055	.0073	.0090	.0107	.0125	.0142	.0160	.0177	.0194	40	0.8333
4	.0004	.0022	.0039	.0056	.0074	.0091	.0109	.0126	.0143	.0161	.0178	.0195	50	1.0417
5	.0005	.0023	.0040	.0058	.0075	.0092	.0110	.0127	.0144	.0162	.0179	.0196	60	1.2500
6	.0007	.0024	.0041	.0059	.0076	.0093	.0111	.0128	.0145	.0163	.0180	.0197	70	1.4583
7	.0008	.0025	.0042	.0060	.0077	.0094	.0112	.0129	.0146	.0164	.0181	.0199	80	1.6667
8	.0009	.0026	.0043	.0061	.0078	.0095	.0113	.0130	.0148	.0165	.0182	.0200	90	1.8750
9	.0010	.0027	.0044	.0062	.0079	.0097	.0114	.0131	.0149	.0166	.0183	.0201	100	2.0833
10	.0011	.0028	.0046	.0063	.0080	.0098	.0115	.0132	.0150	.0167	.0184	.0202		
11	.0012	.0029	.0047	.0064	.0081	.0099	.0116	.0133	.0151	.0168	.0186	.0203		
12	.0013	.0030	.0048	.0065	.0082	.0100	.0117	.0135	.0152	.0169	.0187	.0204		
13	.0014	.0031	.0049	.0066	.0084	.0101	.0118	.0136	.0153	.0170	.0188	.0205		
14	.0015	.0033	.0050	.0067	.0085	.0102	.0119	.0137	.0154	.0171	.0189	.0206		
15	.0016	.0034	.0051	.0068	.0086	.0103	.0120	.0138	.0155	.0173	.0190	.0207		

Hypotenuse

0	.0000	.0834	.1667	.2501	.3334	.4168	.5001	.5835	.6668	.7502	.8335	.9169	10	10.0021
1	.0052	.0886	.1719	.2553	.3386	.4220	.5053	.5887	.6720	.7554	.8387	.9221	20	20.0042
2	.0104	.0938	.1771	.2605	.3438	.4272	.5105	.5939	.6772	.7606	.8439	.9273	30	30.0064
3	.0156	.0990	.1823	.2657	.3490	.4324	.5157	.5991	.6824	.7658	.8491	.9325	40	40.0085
4	.0208	.1042	.1875	.2709	.3542	.4376	.5209	.6043	.6876	.7710	.8543	.9377	50	50.0106
5	.0260	.1094	.1927	.2761	.3595	.4428	.5262	.6095	.6929	.7762	.8596	.9429	60	60.0127
6	.0313	.1146	.1980	.2813	.3647	.4480	.5314	.6147	.6981	.7814	.8648	.9481	70	70.0148
7	.0365	.1198	.2032	.2865	.3699	.4532	.5366	.6199	.7033	.7866	.8700	.9533	80	80.0170
8	.0417	.1250	.2084	.2917	.3751	.4584	.5418	.6251	.7085	.7918	.8752	.9585	90	90.0191
9	.0469	.1302	.2136	.2969	.3803	.4636	.5470	.6303	.7137	.7970	.8804	.9637	100	100.0212
10	.0521	.1354	.2188	.3021	.3855	.4688	.5522	.6356	.7189	.8023	.8856	.9690		
11	.0573	.1407	.2240	.3074	.3907	.4741	.5574	.6408	.7241	.8075	.8908	.9742		
12	.0625	.1459	.2292	.3126	.3959	.4793	.5626	.6460	.7293	.8127	.8960	.9794		
13	.0677	.1511	.2344	.3178	.4011	.4845	.5678	.6512	.7345	.8179	.9012	.9846		
14	.0729	.1563	.2396	.3230	.4063	.4897	.5730	.6564	.7397	.8231	.9064	.9898		
15	.0781	.1615	.2448	.3282	.4115	.4949	.5782	.6616	.7449	.8283	.9117	.9950		

Equivalent Angle 1° 29' 30"					Altitude					Batter $\frac{5}{16}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0022	.0043	.0065	.0087	.0109	.0130	.0152	.0174	.0195	.0217	.0239	10	0.2604
1	.0001	.0023	.0045	.0066	.0088	.0110	.0132	.0153	.0175	.0197	.0218	.0240	20	0.5208
2	.0003	.0024	.0046	.0068	.0090	.0111	.0133	.0155	.0176	.0198	.0220	.0241	30	0.7813
3	.0004	.0026	.0047	.0069	.0091	.0113	.0134	.0156	.0178	.0199	.0221	.0243	40	1.0417
4	.0005	.0027	.0049	.0071	.0092	.0114	.0136	.0157	.0179	.0201	.0222	.0244	50	1.3021
5	.0007	.0028	.0050	.0072	.0094	.0115	.0137	.0159	.0180	.0202	.0224	.0245	60	1.5625
6	.0008	.0030	.0052	.0073	.0095	.0117	.0138	.0160	.0182	.0203	.0225	.0247	70	1.8229
7	.0009	.0031	.0053	.0075	.0096	.0118	.0140	.0161	.0183	.0205	.0227	.0248	80	2.0833
8	.0011	.0033	.0054	.0076	.0098	.0119	.0141	.0163	.0184	.0206	.0228	.0250	90	2.3438
9	.0012	.0034	.0056	.0077	.0099	.0121	.0142	.0164	.0186	.0208	.0229	.0251	100	2.6042
10	.0014	.0035	.0057	.0079	.0100	.0122	.0144	.0165	.0187	.0209	.0231	.0252		
11	.0015	.0037	.0058	.0080	.0102	.0123	.0145	.0167	.0189	.0210	.0232	.0254		
12	.0016	.0038	.0060	.0081	.0103	.0125	.0146	.0168	.0190	.0212	.0233	.0255		
13	.0018	.0039	.0061	.0083	.0104	.0126	.0148	.0170	.0191	.0213	.0235	.0256		
14	.0019	.0041	.0062	.0084	.0106	.0127	.0149	.0171	.0193	.0214	.0236	.0258		
15	.0020	.0042	.0064	.0085	.0107	.0129	.0151	.0172	.0194	.0216	.0237	.0259		

Hypotenuse														
0	.0000	.0834	.1667	.2501	.3334	.4168	.5002	.5835	.6669	.7503	.8336	.9170	10	10.0034
1	.0052	.0886	.1719	.2553	.3387	.4220	.5054	.5887	.6721	.7555	.8388	.9222	20	20.0068
2	.0104	.0938	.1771	.2605	.3439	.4272	.5106	.5940	.6773	.7607	.8440	.9274	30	30.0102
3	.0156	.0990	.1824	.2657	.3491	.4324	.5158	.5992	.6825	.7659	.8492	.9326	40	40.0136
4	.0208	.1042	.1876	.2709	.3543	.4376	.5210	.6044	.6877	.7711	.8545	.9378	50	50.0170
5	.0261	.1094	.1928	.2761	.3595	.4429	.5262	.6096	.6929	.7763	.8597	.9430	60	60.0203
6	.0313	.1146	.1980	.2813	.3647	.4481	.5314	.6148	.6982	.7815	.8649	.9482	70	70.0237
7	.0365	.1198	.2032	.2866	.3699	.4533	.5366	.6200	.7034	.7867	.8701	.9534	80	80.0271
8	.0417	.1250	.2084	.2918	.3751	.4585	.5419	.6252	.7086	.7919	.8753	.9587	90	90.0305
9	.0469	.1303	.2136	.2970	.3803	.4637	.5471	.6304	.7138	.7971	.8805	.9639	100	100.0339
10	.0521	.1355	.2188	.3022	.3855	.4689	.5523	.6356	.7190	.8024	.8857	.9691		
11	.0573	.1407	.2240	.3074	.3908	.4741	.5575	.6408	.7242	.8076	.8909	.9743		
12	.0625	.1459	.2292	.3126	.3960	.4793	.5627	.6461	.7294	.8128	.8961	.9795		
13	.0677	.1511	.2345	.3178	.4012	.4845	.5679	.6513	.7346	.8180	.9013	.9847		
14	.0729	.1563	.2397	.3230	.4064	.4897	.5731	.6565	.7398	.8232	.9066	.9899		
15	.0782	.1615	.2449	.3282	.4116	.4950	.5783	.6617	.7450	.8284	.9118	.9951		

Equivalent Angle $1^{\circ} 47' 23''$						Altitude					Batter $\frac{3}{8}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0026	.0052	.0078	.0104	.0130	.0156	.0182	.0208	.0234	.0260	.0286	10	0.3125
1	.0002	.0028	.0054	.0080	.0106	.0132	.0158	.0184	.0210	.0236	.0262	.0288	20	0.6250
2	.0003	.0029	.0055	.0081	.0107	.0133	.0160	.0186	.0212	.0238	.0264	.0290	30	0.9375
3	.0005	.0031	.0057	.0083	.0109	.0135	.0161	.0187	.0213	.0239	.0265	.0291	40	1.2500
4	.0007	.0033	.0059	.0085	.0111	.0137	.0163	.0189	.0215	.0241	.0267	.0293	50	1.5625
5	.0008	.0034	.0060	.0086	.0112	.0138	.0164	.0190	.0216	.0243	.0269	.0295	60	1.8750
6	.0010	.0036	.0062	.0088	.0114	.0140	.0166	.0192	.0218	.0244	.0270	.0296	70	2.1875
7	.0011	.0037	.0063	.0090	.0116	.0142	.0168	.0194	.0220	.0246	.0272	.0298	80	2.5000
8	.0013	.0039	.0065	.0091	.0117	.0143	.0169	.0195	.0221	.0247	.0273	.0299	90	2.8125
9	.0015	.0041	.0067	.0093	.0119	.0145	.0171	.0197	.0223	.0249	.0275	.0301	100	3.1250
10	.0016	.0042	.0068	.0094	.0120	.0146	.0173	.0199	.0225	.0251	.0277	.0303		
11	.0018	.0044	.0070	.0096	.0122	.0148	.0174	.0200	.0226	.0252	.0278	.0304		
12	.0020	.0046	.0072	.0098	.0124	.0150	.0176	.0202	.0228	.0254	.0280	.0306		
13	.0021	.0047	.0073	.0099	.0125	.0151	.0177	.0203	.0229	.0256	.0282	.0308		
14	.0023	.0049	.0075	.0101	.0127	.0153	.0179	.0205	.0231	.0257	.0283	.0309		
15	.0024	.0050	.0076	.0103	.0129	.0155	.0181	.0207	.0233	.0259	.0285	.0311		

Hypothense

0	.0000	.0834	.1667	.2501	.3335	.4169	.5002	.5836	.6670	.7504	.8337	.9171	10	10.0049
1	.0052	.0886	.1720	.2553	.3387	.4221	.5055	.5888	.6722	.7556	.8390	.9223	20	20.0098
2	.0104	.0938	.1772	.2605	.3439	.4273	.5107	.5940	.6774	.7608	.8442	.9275	30	30.0146
3	.0156	.0990	.1824	.2658	.3491	.4325	.5159	.5993	.6826	.7660	.8494	.9327	40	40.0195
4	.0208	.1042	.1876	.2710	.3543	.4377	.5211	.6045	.6878	.7712	.8546	.9380	50	50.0244
5	.0261	.1094	.1928	.2762	.3596	.4429	.5263	.6097	.6930	.7764	.8598	.9432	60	60.0293
6	.0313	.1146	.1980	.2814	.3648	.4481	.5315	.6149	.6983	.7816	.8650	.9484	70	70.0342
7	.0365	.1199	.2032	.2866	.3700	.4533	.5367	.6201	.7035	.7868	.8702	.9536	80	80.0391
8	.0417	.1251	.2084	.2918	.3752	.4586	.5419	.6253	.7087	.7921	.8754	.9588	90	90.0439
9	.0469	.1303	.2136	.2970	.3804	.4638	.5471	.6305	.7139	.7973	.8806	.9640	100	100.0488
10	.0521	.1355	.2189	.3022	.3856	.4690	.5524	.6357	.7191	.8025	.8858	.9692		
11	.0573	.1407	.2241	.3074	.3908	.4742	.5576	.6409	.7243	.8077	.8911	.9744		
12	.0625	.1459	.2293	.3127	.3960	.4794	.5628	.6461	.7295	.8129	.8963	.9796		
13	.0677	.1511	.2345	.3179	.4012	.4846	.5680	.6514	.7347	.8181	.9015	.9849		
14	.0730	.1563	.2397	.3231	.4064	.4898	.5732	.6566	.7399	.8233	.9067	.9901		
15	.0782	.1615	.2449	.3283	.4117	.4950	.5784	.6618	.7452	.8285	.9119	.9953		

Equivalent Angle 2° 05' 16"						Altitude					Batter $\frac{7}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0030	.0061	.0091	.0122	.0152	.0182	.0213	.0243	.0273	.0304	.0334	10	0.3646
1	.0002	.0032	.0063	.0093	.0123	.0154	.0184	.0215	.0245	.0275	.0306	.0336	20	0.7292
2	.0004	.0034	.0065	.0095	.0125	.0156	.0186	.0216	.0247	.0277	.0308	.0338	30	1.0938
3	.0006	.0036	.0066	.0097	.0127	.0158	.0188	.0218	.0249	.0279	.0310	.0340	40	1.4583
4	.0008	.0038	.0068	.0099	.0129	.0160	.0190	.0220	.0251	.0281	.0311	.0342	50	1.8229
5	.0009	.0040	.0070	.0101	.0131	.0161	.0192	.0222	.0253	.0283	.0313	.0344	60	2.1875
6	.0011	.0042	.0072	.0103	.0133	.0163	.0194	.0224	.0254	.0285	.0315	.0346	70	2.5531
7	.0013	.0044	.0074	.0104	.0135	.0165	.0196	.0226	.0256	.0287	.0317	.0347	80	2.9167
8	.0015	.0046	.0076	.0106	.0137	.0167	.0197	.0228	.0258	.0289	.0319	.0349	90	3.2813
9	.0017	.0047	.0078	.0108	.0139	.0169	.0199	.0230	.0260	.0291	.0321	.0351	100	3.6458
10	.0019	.0049	.0080	.0110	.0141	.0171	.0201	.0232	.0262	.0292	.0323	.0353		
11	.0021	.0051	.0082	.0112	.0142	.0173	.0203	.0234	.0264	.0294	.0325	.0355		
12	.0023	.0053	.0084	.0114	.0144	.0175	.0205	.0235	.0266	.0296	.0327	.0357		
13	.0025	.0055	.0085	.0116	.0146	.0177	.0207	.0237	.0268	.0298	.0329	.0359		
14	.0027	.0057	.0087	.0118	.0148	.0178	.0209	.0239	.0270	.0300	.0330	.0361		
15	.0028	.0059	.0089	.0120	.0150	.0180	.0211	.0241	.0272	.0302	.0332	.0363		

Hypotenuse

0	.0000	.0834	.1668	.2502	.3336	.4169	.5003	.5837	.6671	.7505	.8339	.9173	10	10.0066
1	.0052	.0886	.1720	.2554	.3388	.4222	.5055	.5889	.6723	.7557	.8391	.9225	20	20.0133
2	.0104	.0938	.1772	.2606	.3440	.4274	.5108	.5941	.6775	.7609	.8443	.9277	30	30.0199
3	.0156	.0990	.1824	.2658	.3492	.4326	.5160	.5994	.6827	.7661	.8495	.9329	40	40.0266
4	.0208	.1042	.1876	.2710	.3544	.4378	.5212	.6046	.6880	.7713	.8547	.9381	50	50.0332
5	.0261	.1094	.1928	.2762	.3596	.4430	.5264	.6098	.6932	.7766	.8599	.9433	60	60.0399
6	.0313	.1147	.1980	.2814	.3648	.4482	.5316	.6150	.6984	.7818	.8652	.9485	70	70.0465
7	.0365	.1199	.2033	.2866	.3700	.4534	.5368	.6202	.7036	.7870	.8704	.9538	80	80.0532
8	.0417	.1251	.2085	.2919	.3752	.4586	.5420	.6254	.7088	.7922	.8756	.9590	90	90.0598
9	.0469	.1303	.2137	.2971	.3805	.4638	.5472	.6306	.7140	.7974	.8808	.9642	100	100.0664
10	.0521	.1355	.2189	.3023	.3857	.4691	.5525	.6358	.7192	.8026	.8860	.9694		
11	.0573	.1407	.2241	.3075	.3909	.4743	.5577	.6411	.7244	.8078	.8912	.9746		
12	.0625	.1459	.2293	.3127	.3961	.4795	.5629	.6463	.7297	.8130	.8964	.9798		
13	.0678	.1511	.2345	.3179	.4013	.4847	.5681	.6515	.7349	.8183	.9016	.9850		
14	.0730	.1564	.2397	.3231	.4065	.4899	.5733	.6567	.7401	.8235	.9069	.9902		
15	.0782	.1616	.2450	.3283	.4117	.4951	.5785	.6619	.7453	.8287	.9121	.9955		

Equivalent Angle 2° 23' 09"

Altitude

Batter $\frac{1}{2}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0035	.0069	.0104	.0139	.0174	.0208	.0243	.0278	.0313	.0347	.0382	10 0.4167
1	.0002	.0037	.0072	.0106	.0141	.0176	.0211	.0245	.0280	.0315	.0349	.0384	20 0.8333
2	.0004	.0039	.0074	.0109	.0143	.0178	.0213	.0247	.0282	.0317	.0352	.0386	30 1.2500
3	.0007	.0041	.0076	.0111	.0145	.0180	.0215	.0250	.0284	.0319	.0354	.0388	40 1.6667
4	.0009	.0043	.0078	.0113	.0148	.0182	.0217	.0252	.0286	.0321	.0356	.0391	50 2.0833
5	.0011	.0046	.0080	.0115	.0150	.0184	.0219	.0254	.0289	.0323	.0358	.0393	60 2.5000
6	.0013	.0048	.0082	.0117	.0152	.0187	.0221	.0256	.0291	.0326	.0360	.0395	70 2.9167
7	.0015	.0050	.0085	.0119	.0154	.0189	.0224	.0258	.0293	.0328	.0362	.0397	80 3.3333
8	.0017	.0052	.0087	.0122	.0156	.0191	.0226	.0260	.0295	.0330	.0365	.0399	90 3.7500
9	.0020	.0054	.0089	.0124	.0158	.0193	.0228	.0263	.0297	.0332	.0367	.0401	100 4.1667
10	.0022	.0056	.0091	.0126	.0161	.0195	.0230	.0265	.0299	.0334	.0369	.0404	
11	.0024	.0059	.0093	.0128	.0163	.0197	.0232	.0267	.0302	.0336	.0371	.0406	
12	.0026	.0061	.0095	.0130	.0165	.0200	.0234	.0269	.0304	.0339	.0373	.0408	
13	.0028	.0063	.0098	.0132	.0167	.0202	.0237	.0271	.0306	.0341	.0375	.0410	
14	.0030	.0065	.0100	.0135	.0169	.0204	.0239	.0273	.0308	.0343	.0378	.0412	
15	.0033	.0067	.0102	.0137	.0171	.0206	.0241	.0276	.0310	.0345	.0380	.0414	

Hypotenuse

0	.0000	.0834	.1668	.2502	.3336	.4170	.5004	.5838	.6672	.7507	.8341	.9175	10 10.0087
1	.0052	.0886	.1720	.2554	.3388	.4222	.5056	.5891	.6725	.7559	.8393	.9227	20 20.0174
2	.0104	.0938	.1772	.2606	.3440	.4275	.5109	.5943	.6777	.7611	.8445	.9279	30 30.0260
3	.0156	.0990	.1824	.2659	.3493	.4327	.5161	.5995	.6829	.7663	.8497	.9331	40 40.0347
4	.0209	.1043	.1877	.2711	.3545	.4379	.5213	.6047	.6881	.7715	.8549	.9383	50 50.0434
5	.0261	.1095	.1929	.2763	.3597	.4431	.5265	.6099	.6933	.7767	.8601	.9435	60 60.0521
6	.0313	.1147	.1981	.2815	.3649	.4483	.5317	.6151	.6985	.7819	.8653	.9487	70 70.0607
7	.0365	.1199	.2033	.2867	.3701	.4535	.5369	.6203	.7037	.7871	.8705	.9540	80 80.0694
8	.0417	.1251	.2085	.2919	.3753	.4587	.5421	.6255	.7089	.7924	.8758	.9592	90 90.0781
9	.0469	.1303	.2137	.2971	.3805	.4639	.5473	.6308	.7142	.7976	.8810	.9644	100 100.0868
10	.0521	.1355	.2189	.3023	.3858	.4692	.5526	.6360	.7194	.8028	.8862	.9696	
11	.0573	.1407	.2242	.3076	.3910	.4744	.5578	.6412	.7246	.8080	.8914	.9748	
12	.0626	.1460	.2294	.3128	.3962	.4796	.5630	.6464	.7298	.8132	.8966	.9800	
13	.0678	.1512	.2346	.3180	.4014	.4848	.5682	.6516	.7350	.8184	.9018	.9852	
14	.0730	.1564	.2398	.3232	.4066	.4900	.5734	.6568	.7402	.8236	.9070	.9904	
15	.0782	.1616	.2450	.3284	.4118	.4952	.5786	.6620	.7454	.8288	.9122	.9957	

Equivalent Angle 2° 41' or"						Altitude					Batter $\frac{9}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0039	.0078	.0117	.0156	.0195	.0234	.0273	.0313	.0352	.0391	.0430	10	0.4688
1	.0002	.0042	.0081	.0120	.0159	.0198	.0237	.0276	.0315	.0354	.0393	.0432	20	0.9375
2	.0005	.0044	.0083	.0122	.0161	.0200	.0239	.0278	.0317	.0356	.0396	.0435	30	1.4063
3	.0007	.0046	.0085	.0125	.0164	.0203	.0242	.0281	.0320	.0359	.0398	.0437	40	1.8750
4	.0010	.0049	.0088	.0127	.0166	.0205	.0244	.0283	.0322	.0361	.0400	.0439	50	2.3438
5	.0012	.0051	.0090	.0129	.0168	.0208	.0247	.0286	.0325	.0364	.0403	.0442	60	2.8125
6	.0015	.0054	.0093	.0132	.0171	.0210	.0249	.0288	.0327	.0366	.0405	.0444	70	3.2813
7	.0017	.0056	.0095	.0134	.0173	.0212	.0251	.0291	.0330	.0369	.0408	.0447	80	3.7500
8	.0020	.0059	.0098	.0137	.0176	.0215	.0254	.0293	.0332	.0371	.0410	.0449	90	4.2188
9	.0022	.0061	.0100	.0139	.0178	.0217	.0256	.0295	.0334	.0374	.0413	.0452	100	4.6875
10	.0024	.0063	.0103	.0142	.0181	.0220	.0259	.0298	.0337	.0376	.0415	.0454		
11	.0027	.0066	.0105	.0144	.0183	.0222	.0261	.0300	.0339	.0378	.0417	.0457		
12	.0029	.0068	.0107	.0146	.0186	.0225	.0264	.0303	.0342	.0381	.0420	.0459		
13	.0032	.0071	.0110	.0149	.0188	.0227	.0266	.0305	.0344	.0383	.0422	.0461		
14	.0034	.0073	.0112	.0151	.0190	.0229	.0269	.0308	.0347	.0386	.0425	.0464		
15	.0037	.0076	.0115	.0154	.0193	.0232	.0271	.0310	.0349	.0388	.0427	.0466		

Hypothénuse														
0	.0000	.0834	.1668	.2503	.3337	.4171	.5005	.5840	.6674	.7508	.8342	.9177	10	10.0110
1	.0052	.0886	.1721	.2555	.3389	.4223	.5058	.5892	.6726	.7560	.8395	.9229	20	20.0220
2	.0104	.0939	.1773	.2607	.3441	.4276	.5110	.5944	.6778	.7613	.8447	.9281	30	30.0329
3	.0156	.0991	.1825	.2659	.3493	.4328	.5162	.5996	.6830	.7665	.8499	.9333	40	40.0439
4	.0209	.1043	.1877	.2711	.3546	.4380	.5214	.6048	.6883	.7717	.8551	.9385	50	50.0549
5	.0261	.1095	.1929	.2763	.3598	.4432	.5266	.6100	.6935	.7769	.8603	.9437	60	60.0659
6	.0313	.1147	.1981	.2816	.3650	.4484	.5318	.6153	.6987	.7821	.8655	.9490	70	70.0769
7	.0365	.1199	.2033	.2868	.3702	.4536	.5370	.6205	.7039	.7873	.8707	.9542	80	80.0878
8	.0417	.1251	.2086	.2920	.3754	.4588	.5423	.6257	.7091	.7925	.8760	.9594	90	90.0988
9	.0469	.1304	.2138	.2972	.3806	.4641	.5475	.6309	.7143	.7978	.8812	.9646	100	100.1098
10	.0521	.1356	.2190	.3024	.3858	.4693	.5527	.6361	.7195	.8030	.8864	.9698		
11	.0574	.1408	.2242	.3076	.3911	.4745	.5579	.6413	.7248	.8082	.8916	.9750		
12	.0626	.1460	.2294	.3128	.3963	.4797	.5631	.6465	.7300	.8134	.8968	.9802		
13	.0678	.1512	.2346	.3181	.4015	.4849	.5683	.6518	.7352	.8186	.9020	.9855		
14	.0730	.1564	.2398	.3233	.4067	.4901	.5735	.6570	.7404	.8238	.9072	.9907		
15	.0782	.1616	.2451	.3285	.4119	.4953	.5788	.6622	.7456	.8290	.9125	.9959		

Equivalent Angle 2° 58' 53"

Altitude

Batter $\frac{5}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0043	.0087	.0130	.0174	.0217	.0260	.0304	.0347	.0391	.0434	.0477	10	0.5208
1	.0003	.0046	.0090	.0133	.0176	.0220	.0263	.0307	.0350	.0393	.0437	.0480	20	1.0417
2	.0005	.0049	.0092	.0136	.0179	.0222	.0266	.0309	.0353	.0396	.0439	.0483	30	1.5625
3	.0008	.0052	.0095	.0138	.0182	.0225	.0269	.0312	.0355	.0399	.0442	.0486	40	2.0833
4	.0011	.0054	.0098	.0141	.0184	.0228	.0271	.0315	.0358	.0401	.0445	.0488	50	2.6042
5	.0014	.0057	.0100	.0144	.0187	.0231	.0274	.0317	.0361	.0404	.0448	.0491	60	3.1250
6	.0016	.0060	.0103	.0146	.0190	.0233	.0277	.0320	.0363	.0407	.0450	.0494	70	3.6458
7	.0019	.0062	.0106	.0149	.0193	.0236	.0279	.0323	.0366	.0410	.0453	.0496	80	4.1667
8	.0022	.0065	.0109	.0152	.0195	.0239	.0282	.0326	.0369	.0412	.0456	.0499	90	4.6875
9	.0024	.0068	.0111	.0155	.0198	.0241	.0285	.0328	.0372	.0415	.0458	.0502	100	5.2083
10	.0027	.0071	.0114	.0157	.0201	.0244	.0288	.0331	.0374	.0418	.0461	.0505		
11	.0030	.0073	.0117	.0160	.0203	.0247	.0290	.0334	.0377	.0420	.0464	.0507		
12	.0033	.0076	.0119	.0163	.0206	.0250	.0293	.0336	.0380	.0423	.0467	.0510		
13	.0035	.0079	.0122	.0165	.0209	.0252	.0296	.0339	.0382	.0426	.0469	.0513		
14	.0038	.0081	.0125	.0168	.0212	.0255	.0298	.0342	.0385	.0429	.0472	.0515		
15	.0041	.0084	.0127	.0171	.0214	.0258	.0301	.0345	.0388	.0431	.0475	.0518		

Hypotenuse

0	.0000	.0834	.1669	.2503	.3338	.4172	.5007	.5841	.6676	.7510	.8345	.9179	10	10.0136
1	.0052	.0887	.1721	.2556	.3390	.4224	.5059	.5893	.6728	.7562	.8397	.9231	20	20.0271
2	.0104	.0939	.1773	.2608	.3442	.4277	.5111	.5946	.6780	.7614	.8449	.9283	30	30.0407
3	.0156	.0991	.1825	.2660	.3494	.4329	.5163	.5998	.6832	.7667	.8501	.9336	40	40.0542
4	.0209	.1043	.1878	.2712	.3546	.4381	.5215	.6050	.6884	.7719	.8553	.9388	50	50.0678
5	.0261	.1095	.1930	.2764	.3599	.4433	.5268	.6102	.6936	.7771	.8605	.9440	60	60.0813
6	.0313	.1147	.1982	.2816	.3651	.4485	.5320	.6154	.6989	.7823	.8658	.9492	70	70.0949
7	.0365	.1200	.2034	.2868	.3703	.4537	.5372	.6206	.7041	.7875	.8710	.9544	80	80.1084
8	.0417	.1252	.2086	.2921	.3755	.4590	.5424	.6258	.7093	.7927	.8762	.9596	90	90.1220
9	.0469	.1304	.2138	.2973	.3807	.4642	.5476	.6311	.7145	.7980	.8814	.9648	100	100.1355
10	.0522	.1356	.2190	.3025	.3859	.4694	.5528	.6363	.7197	.8032	.8866	.9701		
11	.0574	.1408	.2243	.3077	.3912	.4746	.5580	.6415	.7249	.8084	.8918	.9753		
12	.0626	.1460	.2295	.3129	.3964	.4798	.5633	.6467	.7302	.8136	.8970	.9805		
13	.0678	.1512	.2347	.3181	.4016	.4850	.5685	.6519	.7354	.8188	.9023	.9857		
14	.0730	.1565	.2399	.3234	.4068	.4902	.5737	.6571	.7406	.8240	.9075	.9909		
15	.0782	.1617	.2451	.3286	.4120	.4955	.5789	.6624	.7458	.8292	.9127	.9961		

Equivalent Angle 3° 16' 44"						Altitude					Batter $\frac{11}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0048	.0095	.0143	.0191	.0239	.0286	.0334	.0382	.0430	.0477	.0525	10	0.5729
1	.0003	.0051	.0098	.0146	.0194	.0242	.0289	.0337	.0385	.0433	.0480	.0528	20	1.1458
2	.0006	.0054	.0101	.0149	.0197	.0245	.0292	.0340	.0388	.0436	.0483	.0531	30	1.7188
3	.0009	.0057	.0104	.0152	.0200	.0248	.0295	.0343	.0391	.0439	.0486	.0534	40	2.2917
4	.0012	.0060	.0107	.0155	.0203	.0251	.0298	.0346	.0394	.0442	.0489	.0537	50	2.8646
5	.0015	.0063	.0110	.0158	.0206	.0254	.0301	.0349	.0397	.0445	.0492	.0540	60	3.4375
6	.0018	.0066	.0113	.0161	.0209	.0257	.0304	.0352	.0400	.0448	.0495	.0543	70	4.0104
7	.0021	.0069	.0116	.0164	.0212	.0260	.0307	.0355	.0403	.0451	.0498	.0546	80	4.5833
8	.0024	.0072	.0119	.0167	.0215	.0263	.0310	.0358	.0406	.0454	.0501	.0549	90	5.1563
9	.0027	.0075	.0122	.0170	.0218	.0266	.0313	.0361	.0409	.0457	.0504	.0552	100	5.7292
10	.0030	.0078	.0125	.0173	.0221	.0269	.0316	.0364	.0412	.0460	.0507	.0555		
11	.0033	.0081	.0128	.0176	.0224	.0272	.0319	.0367	.0415	.0463	.0510	.0558		
12	.0036	.0084	.0131	.0179	.0227	.0275	.0322	.0370	.0418	.0465	.0513	.0561		
13	.0039	.0087	.0134	.0182	.0230	.0278	.0325	.0373	.0421	.0468	.0516	.0564		
14	.0042	.0090	.0137	.0185	.0233	.0280	.0328	.0376	.0424	.0471	.0519	.0567		
15	.0045	.0093	.0140	.0188	.0236	.0283	.0331	.0379	.0427	.0474	.0522	.0570		

Hypotenuse

0	.0000	.0835	.1669	.2504	.3339	.4173	.5008	.5843	.6678	.7512	.8347	.9182	10	10.0164
1	.0052	.0887	.1722	.2556	.3391	.4226	.5060	.5895	.6730	.7564	.8399	.9234	20	20.0328
2	.0104	.0939	.1774	.2608	.3443	.4278	.5113	.5947	.6782	.7617	.8451	.9286	30	30.0492
3	.0157	.0991	.1826	.2661	.3495	.4330	.5165	.5999	.6834	.7669	.8504	.9338	40	40.0656
4	.0209	.1043	.1878	.2713	.3547	.4382	.5217	.6052	.6886	.7721	.8556	.9390	50	50.0820
5	.0261	.1096	.1930	.2765	.3600	.4434	.5269	.6104	.6939	.7773	.8608	.9443	60	60.0984
6	.0313	.1148	.1982	.2817	.3652	.4487	.5321	.6156	.6991	.7825	.8660	.9495	70	70.1148
7	.0365	.1200	.2035	.2869	.3704	.4539	.5373	.6208	.7043	.7877	.8712	.9547	80	80.1312
8	.0417	.1252	.2087	.2921	.3756	.4591	.5426	.6260	.7095	.7930	.8764	.9599	90	90.1476
9	.0470	.1304	.2139	.2974	.3808	.4643	.5478	.6312	.7147	.7982	.8817	.9651	100	100.1640
10	.0522	.1356	.2191	.3026	.3860	.4695	.5530	.6365	.7199	.8034	.8869	.9703		
11	.0574	.1409	.2243	.3078	.3913	.4747	.5582	.6417	.7252	.8086	.8921	.9756		
12	.0626	.1461	.2295	.3130	.3965	.4800	.5634	.6469	.7304	.8138	.8973	.9808		
13	.0678	.1513	.2348	.3182	.4017	.4852	.5686	.6521	.7356	.8190	.9025	.9860		
14	.0730	.1565	.2400	.3234	.4069	.4904	.5739	.6573	.7408	.8243	.9077	.9912		
15	.0783	.1617	.2452	.3287	.4121	.4956	.5791	.6625	.7460	.8295	.9130	.9964		

Equivalent Angle 3° 34' 34"					Altitude							Batter $\frac{3}{4}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0052	.0104	.0156	.0208	.0260	.0313	.0365	.0417	.0469	.0521	.0573	10	0.6250
1	.0003	.0055	.0107	.0160	.0212	.0264	.0316	.0368	.0420	.0472	.0524	.0576	20	1.2500
2	.0007	.0059	.0111	.0163	.0215	.0267	.0319	.0371	.0423	.0475	.0527	.0579	30	1.8750
3	.0010	.0062	.0114	.0166	.0218	.0270	.0322	.0374	.0426	.0479	.0531	.0583	40	2.5000
4	.0013	.0065	.0117	.0169	.0221	.0273	.0326	.0378	.0430	.0482	.0534	.0586	50	3.1250
5	.0016	.0068	.0120	.0173	.0225	.0277	.0329	.0381	.0433	.0485	.0537	.0589	60	3.7500
6	.0020	.0072	.0124	.0176	.0228	.0280	.0332	.0384	.0436	.0488	.0540	.0592	70	4.3750
7	.0023	.0075	.0127	.0179	.0231	.0283	.0335	.0387	.0439	.0492	.0544	.0596	80	5.0000
8	.0026	.0078	.0130	.0182	.0234	.0286	.0339	.0391	.0443	.0495	.0547	.0599	90	5.6250
9	.0029	.0081	.0133	.0186	.0238	.0290	.0342	.0394	.0446	.0498	.0550	.0602	100	6.2500
10	.0033	.0085	.0137	.0189	.0241	.0293	.0345	.0397	.0449	.0501	.0553	.0605		
11	.0036	.0088	.0140	.0192	.0244	.0296	.0348	.0400	.0452	.0505	.0557	.0609		
12	.0039	.0091	.0143	.0195	.0247	.0299	.0352	.0404	.0456	.0508	.0560	.0612		
13	.0042	.0094	.0146	.0199	.0251	.0303	.0355	.0407	.0459	.0511	.0563	.0615		
14	.0046	.0098	.0150	.0202	.0254	.0306	.0358	.0410	.0462	.0514	.0566	.0618		
15	.0049	.0101	.0153	.0205	.0257	.0309	.0361	.0413	.0465	.0518	.0570	.0622		

Hypotenuse

0	.0000	.0835	.1670	.2505	.3340	.4175	.5010	.5845	.6680	.7515	.8350	.9185	10	10.0195
1	.0052	.0887	.1722	.2557	.3392	.4227	.5062	.5897	.6732	.7567	.8402	.9237	20	20.0390
2	.0104	.0939	.1774	.2609	.3444	.4279	.5114	.5949	.6784	.7619	.8454	.9289	30	30.0585
3	.0157	.0992	.1826	.2661	.3496	.4331	.5166	.6001	.6836	.7671	.8506	.9341	40	40.0780
4	.0209	.1044	.1879	.2714	.3549	.4384	.5218	.6053	.6888	.7723	.8558	.9393	50	50.0976
5	.0261	.1096	.1931	.2766	.3601	.4436	.5271	.6106	.6941	.7776	.8611	.9445	60	60.1171
6	.0313	.1148	.1983	.2818	.3653	.4488	.5323	.6158	.6993	.7828	.8663	.9498	70	70.1366
7	.0365	.1200	.2035	.2870	.3705	.4540	.5375	.6210	.7045	.7880	.8715	.9550	80	80.1561
8	.0417	.1252	.2087	.2922	.3757	.4592	.5427	.6262	.7097	.7932	.8767	.9602	90	90.1756
9	.0470	.1305	.2140	.2975	.3810	.4644	.5479	.6314	.7149	.7984	.8819	.9654	100	100.1951
10	.0522	.1357	.2192	.3027	.3862	.4697	.5532	.6367	.7202	.8036	.8871	.9706		
11	.0574	.1409	.2244	.3079	.3914	.4749	.5584	.6419	.7254	.8089	.8924	.9759		
12	.0626	.1461	.2296	.3131	.3966	.4801	.5636	.6471	.7306	.8141	.8976	.9811		
13	.0678	.1513	.2348	.3183	.4018	.4853	.5688	.6523	.7358	.8193	.9028	.9863		
14	.0731	.1566	.2401	.3235	.4070	.4905	.5740	.6575	.7410	.8245	.9080	.9915		
15	.0783	.1618	.2453	.3288	.4123	.4958	.5793	.6627	.7462	.8297	.9132	.9967		

Equivalent Angle 3° 52' 24"						Altitude					Batter $\frac{1}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0056	.0113	.0169	.0226	.0282	.0339	.0395	.0451	.0508	.0564	.0621	10	0.6771
1	.0004	.0060	.0116	.0173	.0229	.0286	.0342	.0398	.0455	.0511	.0568	.0624	20	1.3542
2	.0007	.0063	.0120	.0176	.0233	.0289	.0346	.0402	.0458	.0515	.0571	.0628	30	2.0313
3	.0011	.0067	.0123	.0180	.0236	.0293	.0349	.0406	.0462	.0518	.0575	.0631	40	2.7083
4	.0014	.0071	.0127	.0183	.0240	.0296	.0353	.0409	.0465	.0522	.0578	.0635	50	3.3854
5	.0018	.0074	.0130	.0187	.0243	.0300	.0356	.0413	.0469	.0525	.0582	.0638	60	4.0625
6	.0021	.0078	.0134	.0190	.0247	.0303	.0360	.0416	.0473	.0529	.0585	.0642	70	4.7396
7	.0025	.0081	.0138	.0194	.0250	.0307	.0363	.0420	.0476	.0532	.0589	.0645	80	5.4167
8	.0028	.0085	.0141	.0197	.0254	.0310	.0367	.0423	.0480	.0536	.0592	.0649	90	6.0938
9	.0032	.0088	.0145	.0201	.0257	.0314	.0370	.0427	.0483	.0540	.0596	.0652	100	6.7708
10	.0035	.0092	.0148	.0205	.0261	.0317	.0374	.0430	.0487	.0543	.0600	.0656		
11	.0039	.0095	.0152	.0208	.0264	.0321	.0377	.0434	.0490	.0547	.0603	.0659		
12	.0042	.0099	.0155	.0212	.0268	.0324	.0381	.0437	.0494	.0550	.0607	.0663		
13	.0046	.0102	.0159	.0215	.0272	.0328	.0384	.0441	.0497	.0554	.0610	.0667		
14	.0049	.0106	.0162	.0219	.0275	.0331	.0388	.0444	.0501	.0557	.0614	.0670		
15	.0053	.0109	.0166	.0222	.0279	.0335	.0391	.0448	.0504	.0561	.0617	.0674		

Hypotenuse

0	.0000	.0835	.1670	.2506	.3341	.4176	.5011	.5847	.6682	.7517	.8352	.9188	10	10.0229
1	.0052	.0887	.1723	.2558	.3393	.4228	.5064	.5899	.6734	.7569	.8405	.9240	20	20.0458
2	.0104	.0940	.1775	.2610	.3445	.4281	.5116	.5951	.6786	.7622	.8457	.9292	30	30.0687
3	.0157	.0992	.1827	.2662	.3498	.4333	.5168	.6003	.6839	.7674	.8509	.9344	40	40.0916
4	.0209	.1044	.1879	.2715	.3550	.4385	.5220	.6055	.6891	.7726	.8561	.9396	50	50.1145
5	.0261	.1096	.1931	.2767	.3602	.4437	.5272	.6108	.6943	.7778	.8613	.9449	60	60.1374
6	.0313	.1148	.1984	.2819	.3654	.4489	.5325	.6160	.6995	.7830	.8666	.9501	70	70.1603
7	.0365	.1201	.2036	.2871	.3706	.4542	.5377	.6212	.7047	.7883	.8718	.9553	80	80.1832
8	.0418	.1253	.2088	.2923	.3759	.4594	.5429	.6264	.7100	.7935	.8770	.9605	90	90.2061
9	.0470	.1305	.2140	.2976	.3811	.4646	.5481	.6317	.7152	.7987	.8822	.9657	100	100.2290
10	.0522	.1357	.2193	.3028	.3863	.4698	.5533	.6369	.7204	.8039	.8874	.9710		
11	.0574	.1409	.2245	.3080	.3915	.4750	.5586	.6421	.7256	.8091	.8927	.9762		
12	.0626	.1462	.2297	.3132	.3967	.4803	.5638	.6473	.7308	.8144	.8979	.9814		
13	.0679	.1514	.2349	.3184	.4020	.4855	.5690	.6525	.7361	.8196	.9031	.9866		
14	.0731	.1566	.2401	.3237	.4072	.4907	.5742	.6578	.7413	.8248	.9083	.9918		
15	.0783	.1618	.2454	.3289	.4124	.4959	.5794	.6630	.7465	.8300	.9135	.9971		

Equivalent Angle 4° 10' 13"					Altitude					Batter $\frac{7}{8}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0061	.0122	.0182	.0243	.0304	.0365	.0425	.0486	.0547	.0608	.0668	10	0.7292
1	.0004	.0065	.0125	.0186	.0247	.0308	.0368	.0429	.0490	.0551	.0611	.0672	20	1.4583
2	.0008	.0068	.0129	.0190	.0251	.0311	.0372	.0433	.0494	.0554	.0615	.0676	30	2.1875
3	.0011	.0072	.0133	.0194	.0254	.0315	.0376	.0437	.0498	.0558	.0619	.0680	40	2.9167
4	.0015	.0076	.0137	.0197	.0258	.0319	.0380	.0441	.0501	.0562	.0623	.0684	50	3.6458
5	.0019	.0080	.0141	.0201	.0262	.0323	.0384	.0444	.0505	.0566	.0627	.0687	60	4.3750
6	.0023	.0084	.0144	.0205	.0266	.0327	.0387	.0448	.0509	.0570	.0630	.0691	70	5.1042
7	.0027	.0087	.0148	.0209	.0270	.0330	.0391	.0452	.0513	.0573	.0634	.0695	80	5.8333
8	.0030	.0091	.0152	.0213	.0273	.0334	.0395	.0456	.0516	.0577	.0638	.0699	90	6.5625
9	.0034	.0095	.0156	.0216	.0277	.0338	.0399	.0460	.0520	.0581	.0642	.0703	100	7.2917
10	.0038	.0099	.0160	.0220	.0281	.0342	.0403	.0463	.0524	.0585	.0646	.0706		
11	.0042	.0103	.0163	.0224	.0285	.0346	.0406	.0467	.0528	.0589	.0649	.0710		
12	.0046	.0106	.0167	.0228	.0289	.0349	.0410	.0471	.0532	.0592	.0653	.0714		
13	.0049	.0110	.0171	.0232	.0292	.0353	.0414	.0475	.0535	.0596	.0657	.0718		
14	.0053	.0114	.0175	.0235	.0296	.0357	.0418	.0479	.0539	.0600	.0661	.0722		
15	.0057	.0118	.0178	.0239	.0300	.0361	.0422	.0482	.0543	.0604	.0665	.0725		

Hypotenuse

0	.0000	.0836	.1671	.2507	.3342	.4178	.5013	.5849	.6684	.7520	.8355	.9191	10	10.0265
1	.0052	.0888	.1723	.2559	.3394	.4230	.5065	.5901	.6737	.7572	.8408	.9243	20	20.0531
2	.0104	.0940	.1776	.2611	.3447	.4282	.5118	.5953	.6789	.7624	.8460	.9295	30	30.0796
3	.0157	.0992	.1828	.2663	.3499	.4334	.5170	.6005	.6841	.7677	.8512	.9348	40	40.1062
4	.0209	.1044	.1880	.2716	.3551	.4387	.5222	.6058	.6893	.7729	.8564	.9400	50	50.1327
5	.0261	.1097	.1932	.2768	.3603	.4439	.5274	.6110	.6946	.7781	.8617	.9452	60	60.1593
6	.0313	.1149	.1984	.2820	.3656	.4491	.5327	.6162	.6998	.7833	.8669	.9504	70	70.1858
7	.0366	.1201	.2037	.2872	.3708	.4543	.5379	.6214	.7050	.7885	.8721	.9557	80	80.2124
8	.0418	.1253	.2089	.2924	.3760	.4596	.5431	.6267	.7102	.7938	.8773	.9609	90	90.2389
9	.0470	.1306	.2141	.2977	.3812	.4648	.5483	.6319	.7154	.7990	.8825	.9661	100	100.2655
10	.0522	.1358	.2193	.3029	.3864	.4700	.5535	.6371	.7207	.8042	.8878	.9713		
11	.0574	.1410	.2246	.3081	.3917	.4752	.5588	.6423	.7259	.8094	.8930	.9765		
12	.0627	.1462	.2298	.3133	.3969	.4804	.5640	.6475	.7311	.8147	.8982	.9818		
13	.0679	.1514	.2350	.3186	.4021	.4857	.5692	.6528	.7363	.8199	.9034	.9870		
14	.0731	.1567	.2402	.3238	.4073	.4909	.5744	.6580	.7415	.8251	.9087	.9922		
15	.0783	.1619	.2454	.3290	.4126	.4961	.5797	.6632	.7468	.8303	.9139	.9974		

Equivalent Angle 4° 28' or"						Altitude					Batter $\frac{15}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0065	.0130	.0195	.0260	.0326	.0391	.0456	.0521	.0586	.0651	.0716	10	0.7813
1	.0004	.0069	.0134	.0199	.0264	.0330	.0395	.0460	.0525	.0590	.0655	.0720	20	1.5625
2	.0008	.0073	.0138	.0203	.0269	.0334	.0399	.0464	.0529	.0594	.0659	.0724	30	2.3438
3	.0012	.0077	.0142	.0208	.0273	.0338	.0403	.0468	.0533	.0598	.0663	.0728	40	3.1250
4	.0016	.0081	.0146	.0212	.0277	.0342	.0407	.0472	.0537	.0602	.0667	.0732	50	3.9063
5	.0020	.0085	.0151	.0216	.0281	.0346	.0411	.0476	.0541	.0606	.0671	.0736	60	4.6875
6	.0024	.0090	.0155	.0220	.0285	.0350	.0415	.0480	.0545	.0610	.0675	.0741	70	5.4688
7	.0028	.0094	.0159	.0224	.0289	.0354	.0419	.0484	.0549	.0614	.0680	.0745	80	6.2500
8	.0033	.0098	.0163	.0228	.0293	.0358	.0423	.0488	.0553	.0618	.0684	.0749	90	7.0313
9	.0037	.0102	.0167	.0232	.0297	.0362	.0427	.0492	.0557	.0623	.0688	.0753	100	7.8125
10	.0041	.0106	.0171	.0236	.0301	.0366	.0431	.0496	.0562	.0627	.0692	.0757		
11	.0045	.0110	.0175	.0240	.0305	.0370	.0435	.0500	.0566	.0631	.0696	.0761		
12	.0049	.0114	.0179	.0244	.0309	.0374	.0439	.0505	.0570	.0635	.0700	.0765		
13	.0053	.0118	.0183	.0248	.0313	.0378	.0444	.0509	.0574	.0639	.0704	.0769		
14	.0057	.0122	.0187	.0252	.0317	.0382	.0448	.0513	.0578	.0643	.0708	.0773		
15	.0061	.0126	.0191	.0256	.0321	.0387	.0452	.0517	.0582	.0647	.0712	.0777		
Hypothenus														
0	.0000	.0836	.1672	.2508	.3343	.4179	.5015	.5851	.6687	.7523	.8359	.9195	10	10.0305
1	.0052	.0888	.1724	.2560	.3396	.4232	.5067	.5903	.6739	.7575	.8411	.9247	20	20.0609
2	.0104	.0940	.1776	.2612	.3448	.4284	.5120	.5956	.6791	.7627	.8463	.9299	30	30.0914
3	.0157	.0993	.1828	.2664	.3500	.4336	.5172	.6008	.6844	.7680	.8515	.9351	40	40.1219
4	.0209	.1045	.1881	.2717	.3552	.4388	.5224	.6060	.6896	.7732	.8568	.9404	50	50.1524
5	.0261	.1097	.1933	.2769	.3605	.4441	.5276	.6112	.6948	.7784	.8620	.9456	60	60.1828
6	.0313	.1149	.1985	.2821	.3657	.4493	.5329	.6165	.7000	.7836	.8672	.9508	70	70.2133
7	.0366	.1202	.2037	.2873	.3709	.4545	.5381	.6217	.7053	.7889	.8724	.9560	80	80.2438
8	.0418	.1254	.2090	.2926	.3761	.4597	.5433	.6269	.7105	.7941	.8777	.9613	90	90.2742
9	.0470	.1306	.2142	.2978	.3814	.4650	.5485	.6321	.7157	.7993	.8829	.9665	100	100.3047
10	.0522	.1358	.2194	.3030	.3866	.4702	.5538	.6374	.7209	.8045	.8881	.9717		
11	.0575	.1411	.2246	.3082	.3918	.4754	.5590	.6426	.7262	.8098	.8933	.9769		
12	.0627	.1463	.2299	.3135	.3970	.4806	.5642	.6478	.7314	.8150	.8986	.9822		
13	.0679	.1515	.2351	.3187	.4023	.4859	.5694	.6530	.7366	.8202	.9038	.9874		
14	.0731	.1567	.2403	.3239	.4075	.4911	.5747	.6582	.7418	.8254	.9090	.9926		
15	.0784	.1619	.2455	.3291	.4127	.4963	.5799	.6635	.7471	.8306	.9142	.9978		

Equivalent Angle 4° 45' 48"

Altitude

Batter 1" to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0069	.0139	.0208	.0278	.0347	.0417	.0486	.0556	.0625	.0694	.0764	10	0.8333
1	.0004	.0074	.0143	.0213	.0282	.0352	.0421	.0490	.0560	.0629	.0699	.0768	20	1.6667
2	.0009	.0078	.0148	.0217	.0286	.0356	.0425	.0495	.0564	.0634	.0703	.0773	30	2.5000
3	.0013	.0082	.0152	.0221	.0291	.0360	.0430	.0499	.0569	.0638	.0707	.0777	40	3.3333
4	.0017	.0087	.0156	.0226	.0295	.0365	.0434	.0503	.0573	.0642	.0712	.0781	50	4.1667
5	.0022	.0091	.0161	.0230	.0299	.0369	.0438	.0508	.0577	.0647	.0716	.0786	60	5.0000
6	.0026	.0095	.0165	.0234	.0304	.0373	.0443	.0512	.0582	.0651	.0720	.0790	70	5.8333
7	.0030	.0100	.0169	.0239	.0308	.0378	.0447	.0516	.0586	.0655	.0725	.0794	80	6.6667
8	.0035	.0104	.0174	.0243	.0313	.0382	.0451	.0521	.0590	.0660	.0729	.0799	90	7.5000
9	.0039	.0109	.0178	.0247	.0317	.0386	.0456	.0525	.0595	.0664	.0734	.0803	100	8.3333
10	.0043	.0113	.0182	.0252	.0321	.0391	.0460	.0530	.0599	.0668	.0738	.0807		
11	.0048	.0117	.0187	.0256	.0326	.0395	.0464	.0534	.0603	.0673	.0742	.0812		
12	.0052	.0122	.0191	.0260	.0330	.0399	.0469	.0538	.0608	.0677	.0747	.0816		
13	.0056	.0126	.0195	.0265	.0334	.0404	.0473	.0543	.0612	.0681	.0751	.0820		
14	.0061	.0130	.0200	.0269	.0339	.0408	.0477	.0547	.0616	.0686	.0755	.0825		
15	.0065	.0135	.0204	.0273	.0343	.0412	.0482	.0551	.0621	.0690	.0760	.0829		

Hypothénuse

0	.0000	.0836	.1672	.2509	.3345	.4181	.5017	.5854	.6690	.7526	.8362	.9198	10	10.0347
1	.0052	.0888	.1725	.2561	.3397	.4233	.5070	.5906	.6742	.7578	.8414	.9251	20	20.0693
2	.0105	.0941	.1777	.2613	.3449	.4286	.5122	.5958	.6794	.7631	.8467	.9303	30	30.1040
3	.0157	.0993	.1829	.2665	.3502	.4338	.5174	.6010	.6847	.7683	.8519	.9355	40	40.1386
4	.0209	.1045	.1881	.2718	.3554	.4390	.5226	.6063	.6899	.7735	.8571	.9407	50	50.1733
5	.0261	.1098	.1934	.2770	.3606	.4442	.5279	.6115	.6951	.7787	.8624	.9460	60	60.2080
6	.0314	.1150	.1986	.2822	.3658	.4495	.5331	.6167	.7003	.7840	.8676	.9512	70	70.2426
7	.0366	.1202	.2038	.2875	.3711	.4547	.5383	.6219	.7056	.7892	.8728	.9564	80	80.2773
8	.0418	.1254	.2091	.2927	.3763	.4599	.5435	.6272	.7108	.7944	.8780	.9617	90	90.3120
9	.0470	.1307	.2143	.2979	.3815	.4651	.5488	.6324	.7160	.7996	.8833	.9669	100	100.3466
10	.0523	.1359	.2195	.3031	.3868	.4704	.5540	.6376	.7212	.8049	.8885	.9721		
11	.0575	.1411	.2247	.3084	.3920	.4756	.5592	.6428	.7265	.8101	.8937	.9773		
12	.0627	.1463	.2300	.3136	.3972	.4808	.5644	.6481	.7317	.8153	.8989	.9826		
13	.0679	.1516	.2352	.3188	.4024	.4861	.5697	.6533	.7369	.8205	.9042	.9878		
14	.0732	.1568	.2404	.3240	.4077	.4913	.5749	.6585	.7421	.8258	.9094	.9930		
15	.0784	.1620	.2456	.3293	.4129	.4965	.5801	.6638	.7474	.8310	.9146	.9982		

Equivalent Angle 5° 03' 35"						Altitude					Batter 1 ¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0074	.0148	.0221	.0295	.0369	.0443	.0516	.0590	.0664	.0738	.0812	10	0.8854
1	.0005	.0078	.0152	.0226	.0300	.0374	.0447	.0521	.0595	.0669	.0742	.0816	20	1.7708
2	.0009	.0083	.0157	.0231	.0304	.0378	.0452	.0526	.0600	.0673	.0747	.0821	30	2.6563
3	.0014	.0088	.0161	.0235	.0309	.0383	.0457	.0530	.0604	.0678	.0752	.0825	40	3.5417
4	.0018	.0092	.0166	.0240	.0314	.0387	.0461	.0535	.0609	.0683	.0756	.0830	50	4.4271
5	.0023	.0097	.0171	.0244	.0318	.0392	.0466	.0540	.0613	.0687	.0761	.0835	60	5.3125
6	.0028	.0101	.0175	.0249	.0323	.0397	.0470	.0544	.0618	.0692	.0766	.0839	70	6.1979
7	.0032	.0106	.0180	.0254	.0327	.0401	.0475	.0549	.0623	.0696	.0770	.0844	80	7.0833
8	.0037	.0111	.0184	.0258	.0332	.0406	.0480	.0553	.0627	.0701	.0775	.0849	90	7.9688
9	.0042	.0115	.0189	.0263	.0337	.0410	.0484	.0558	.0632	.0706	.0779	.0853	100	8.8542
10	.0046	.0120	.0194	.0267	.0341	.0415	.0489	.0563	.0636	.0710	.0784	.0858		
11	.0051	.0125	.0198	.0272	.0346	.0420	.0493	.0567	.0641	.0715	.0789	.0862		
12	.0055	.0129	.0203	.0277	.0350	.0424	.0498	.0572	.0646	.0719	.0793	.0867		
13	.0060	.0134	.0208	.0281	.0355	.0429	.0503	.0576	.0650	.0724	.0798	.0872		
14	.0065	.0138	.0212	.0286	.0360	.0433	.0507	.0581	.0655	.0729	.0802	.0876		
15	.0069	.0143	.0217	.0291	.0364	.0438	.0512	.0586	.0659	.0733	.0807	.0881		

Hypotenuse

0	.0000	.0837	.1673	.2510	.3346	.4183	.5020	.5856	.6693	.7529	.8366	.9203	10	10.0391
1	.0052	.0889	.1725	.2562	.3399	.4235	.5072	.5908	.6745	.7582	.8418	.9255	20	20.0782
2	.0105	.0941	.1778	.2614	.3451	.4288	.5124	.5961	.6797	.7634	.8471	.9307	30	30.1174
3	.0157	.0993	.1830	.2667	.3503	.4340	.5176	.6013	.6850	.7686	.8523	.9359	40	40.1565
4	.0209	.1046	.1882	.2719	.3556	.4392	.5229	.6065	.6902	.7738	.8575	.9412	50	50.1956
5	.0261	.1098	.1935	.2771	.3608	.4444	.5281	.6118	.6954	.7791	.8627	.9464	60	60.2347
6	.0314	.1150	.1987	.2824	.3660	.4497	.5333	.6170	.7006	.7843	.8680	.9516	70	70.2739
7	.0366	.1203	.2039	.2876	.3712	.4549	.5386	.6222	.7059	.7895	.8732	.9569	80	80.3130
8	.0418	.1255	.2091	.2928	.3765	.4601	.5438	.6274	.7111	.7948	.8784	.9621	90	90.3521
9	.0471	.1307	.2144	.2980	.3817	.4654	.5490	.6327	.7163	.8000	.8837	.9673	100	100.3912
10	.0523	.1359	.2196	.3033	.3869	.4706	.5542	.6379	.7216	.8052	.8889	.9725		
11	.0575	.1412	.2248	.3085	.3922	.4758	.5595	.6431	.7268	.8104	.8941	.9778		
12	.0627	.1464	.2301	.3137	.3974	.4810	.5647	.6484	.7320	.8157	.8993	.9830		
13	.0680	.1516	.2353	.3190	.4026	.4863	.5699	.6536	.7372	.8209	.9046	.9882		
14	.0732	.1569	.2405	.3242	.4078	.4915	.5752	.6588	.7425	.8261	.9098	.9935		
15	.0784	.1621	.2457	.3294	.4131	.4967	.5804	.6640	.7477	.8314	.9150	.9987		

18854
7708
0563
5417
4271
3125
1979
0833
0688
542

Equivalent Angle 5° 21' 21"						Altitude					Batter 1 ¹ / ₈ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0078	.0156	.0234	.0313	.0391	.0469	.0547	.0625	.0703	.0781	.0859	10	0.9375
1	.0005	.0083	.0161	.0239	.0317	.0396	.0474	.0552	.0630	.0708	.0786	.0864	20	1.8750
2	.0010	.0088	.0166	.0244	.0322	.0400	.0479	.0557	.0635	.0713	.0791	.0869	30	2.8125
3	.0015	.0093	.0171	.0249	.0327	.0405	.0483	.0562	.0640	.0718	.0796	.0874	40	3.7500
4	.0020	.0098	.0176	.0254	.0332	.0410	.0488	.0566	.0645	.0723	.0801	.0879	50	4.6875
5	.0024	.0103	.0181	.0259	.0337	.0415	.0493	.0571	.0649	.0728	.0806	.0884	60	5.6250
6	.0029	.0107	.0186	.0264	.0342	.0420	.0498	.0576	.0654	.0732	.0811	.0889	70	6.5625
7	.0034	.0112	.0190	.0269	.0347	.0425	.0503	.0581	.0659	.0737	.0815	.0894	80	7.5000
8	.0039	.0117	.0195	.0273	.0352	.0430	.0508	.0586	.0664	.0742	.0820	.0898	90	8.4375
9	.0044	.0122	.0200	.0278	.0356	.0435	.0513	.0591	.0669	.0747	.0825	.0903	100	9.3750
10	.0049	.0127	.0205	.0283	.0361	.0439	.0518	.0596	.0674	.0752	.0830	.0908		
11	.0054	.0132	.0210	.0288	.0366	.0444	.0522	.0601	.0679	.0757	.0835	.0913		
12	.0059	.0137	.0215	.0293	.0371	.0449	.0527	.0605	.0684	.0762	.0840	.0918		
13	.0063	.0142	.0220	.0298	.0376	.0454	.0532	.0610	.0688	.0767	.0845	.0923		
14	.0068	.0146	.0225	.0303	.0381	.0459	.0537	.0615	.0693	.0771	.0850	.0928		
15	.0073	.0151	.0229	.0308	.0386	.0464	.0542	.0620	.0698	.0776	.0854	.0933		

Hypotenuse

91
82
74
65
56
47
39
30
21
12

0	.0000	.0837	.1674	.2511	.3348	.4185	.5022	.5859	.6696	.7533	.8370	.9207	10	10.0438
1	.0052	.0889	.1726	.2563	.3400	.4237	.5074	.5911	.6748	.7585	.8422	.9259	20	20.0877
2	.0105	.0942	.1779	.2616	.3453	.4290	.5127	.5964	.6801	.7638	.8474	.9311	30	30.1315
3	.0157	.0994	.1831	.2668	.3505	.4342	.5179	.6016	.6853	.7690	.8527	.9364	40	40.1754
4	.0209	.1046	.1883	.2720	.3557	.4394	.5231	.6068	.6905	.7742	.8579	.9416	50	50.2192
5	.0262	.1099	.1936	.2773	.3610	.4446	.5283	.6120	.6957	.7794	.8631	.9468	60	60.2631
6	.0314	.1151	.1988	.2825	.3662	.4499	.5336	.6173	.7010	.7847	.8684	.9521	70	70.3069
7	.0366	.1203	.2040	.2877	.3714	.4551	.5388	.6225	.7062	.7899	.8736	.9573	80	80.3508
8	.0418	.1255	.2092	.2929	.3766	.4603	.5440	.6277	.7114	.7951	.8788	.9625	90	90.3946
9	.0471	.1308	.2145	.2982	.3819	.4656	.5493	.6330	.7167	.8004	.8841	.9678	100	100.4385
10	.0523	.1360	.2197	.3034	.3871	.4708	.5545	.6382	.7219	.8056	.8893	.9730		
11	.0575	.1412	.2249	.3086	.3923	.4760	.5597	.6434	.7271	.8108	.8945	.9782		
12	.0628	.1465	.2302	.3139	.3976	.4813	.5650	.6487	.7324	.8161	.8998	.9835		
13	.0680	.1517	.2354	.3191	.4028	.4865	.5702	.6539	.7376	.8213	.9050	.9887		
14	.0732	.1569	.2406	.3243	.4080	.4917	.5754	.6591	.7428	.8265	.9102	.9939		
15	.0785	.1622	.2459	.3296	.4133	.4970	.5807	.6644	.7481	.8318	.9155	.9992		

Equivalent Angle 5° 39' 06"						Altitude					Batter 1 $\frac{3}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0082	.0165	.0247	.0330	.0412	.0495	.0577	.0660	.0742	.0825	.0907	10	0.9896
1	.0005	.0088	.0170	.0253	.0335	.0417	.0500	.0582	.0665	.0747	.0830	.0912	20	1.9792
2	.0010	.0093	.0175	.0258	.0340	.0423	.0505	.0588	.0670	.0752	.0835	.0917	30	2.9688
3	.0015	.0098	.0180	.0263	.0345	.0428	.0510	.0593	.0675	.0758	.0840	.0923	40	3.9583
4	.0021	.0103	.0186	.0268	.0350	.0433	.0515	.0598	.0680	.0763	.0845	.0928	50	4.9479
5	.0026	.0108	.0191	.0273	.0356	.0438	.0521	.0603	.0685	.0768	.0850	.0933	60	5.9375
6	.0031	.0113	.0196	.0278	.0361	.0443	.0526	.0608	.0691	.0773	.0856	.0938	70	6.9271
7	.0036	.0119	.0201	.0283	.0366	.0448	.0531	.0613	.0696	.0778	.0861	.0943	80	7.9167
8	.0041	.0124	.0206	.0289	.0371	.0454	.0536	.0618	.0701	.0783	.0866	.0948	90	8.9063
9	.0046	.0129	.0211	.0294	.0376	.0459	.0541	.0624	.0706	.0789	.0871	.0954	100	9.8958
10	.0052	.0134	.0216	.0299	.0381	.0464	.0546	.0629	.0711	.0794	.0876	.0959		
11	.0057	.0139	.0222	.0304	.0387	.0469	.0551	.0634	.0716	.0799	.0881	.0964		
12	.0062	.0144	.0227	.0309	.0392	.0474	.0557	.0639	.0722	.0804	.0887	.0969		
13	.0067	.0149	.0232	.0314	.0397	.0479	.0562	.0644	.0727	.0809	.0892	.0974		
14	.0072	.0155	.0237	.0320	.0402	.0484	.0567	.0649	.0732	.0814	.0897	.0979		
15	.0077	.0160	.0242	.0325	.0407	.0490	.0572	.0655	.0737	.0819	.0902	.0984		

Hypotenuse

0	.0000	.0837	.1675	.2512	.3350	.4187	.5024	.5862	.6699	.7537	.8374	.9211	10	10.0488
1	.0052	.0890	.1727	.2565	.3402	.4239	.5077	.5914	.6752	.7589	.8426	.9264	20	20.0977
2	.0105	.0942	.1779	.2617	.3454	.4292	.5129	.5967	.6804	.7641	.8479	.9316	30	30.1465
3	.0157	.0994	.1832	.2669	.3507	.4344	.5181	.6019	.6856	.7694	.8531	.9368	40	40.1954
4	.0209	.1047	.1884	.2722	.3559	.4396	.5234	.6071	.6909	.7746	.8583	.9421	50	50.2442
5	.0262	.1099	.1936	.2774	.3611	.4449	.5286	.6124	.6961	.7798	.8636	.9473	60	60.2931
6	.0314	.1151	.1989	.2826	.3664	.4501	.5338	.6176	.7013	.7851	.8688	.9525	70	70.3419
7	.0366	.1204	.2041	.2879	.3716	.4553	.5391	.6228	.7066	.7903	.8740	.9578	80	80.3908
8	.0419	.1256	.2093	.2931	.3768	.4606	.5443	.6281	.7118	.7955	.8793	.9630	90	90.4396
9	.0471	.1308	.2146	.2983	.3821	.4658	.5495	.6333	.7170	.8008	.8845	.9682	100	100.4884
10	.0523	.1361	.2198	.3036	.3873	.4710	.5548	.6385	.7223	.8060	.8897	.9735		
11	.0576	.1413	.2250	.3088	.3925	.4763	.5600	.6438	.7275	.8112	.8950	.9787		
12	.0628	.1465	.2303	.3140	.3978	.4815	.5652	.6490	.7327	.8165	.9002	.9839		
13	.0680	.1518	.2355	.3193	.4030	.4867	.5705	.6542	.7380	.8217	.9054	.9892		
14	.0733	.1570	.2407	.3245	.4082	.4920	.5757	.6595	.7432	.8269	.9107	.9944		
15	.0785	.1622	.2460	.3297	.4135	.4972	.5809	.6647	.7484	.8322	.9159	.9997		

Equivalent Angle 5° 56' 49"

Altitude

Batter 1 $\frac{1}{4}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0087	.0174	.0260	.0347	.0434	.0521	.0608	.0694	.0781	.0868	.0955	10	1.0417
1	.0005	.0092	.0179	.0266	.0353	.0439	.0526	.0613	.0700	.0787	.0873	.0960	20	2.0833
2	.0011	.0098	.0184	.0271	.0358	.0445	.0532	.0618	.0705	.0792	.0879	.0966	30	3.1250
3	.0016	.0103	.0190	.0277	.0363	.0450	.0537	.0624	.0711	.0798	.0884	.0971	40	4.1667
4	.0022	.0109	.0195	.0282	.0369	.0456	.0543	.0629	.0716	.0803	.0890	.0977	50	5.2083
5	.0027	.0114	.0201	.0288	.0374	.0461	.0548	.0635	.0722	.0808	.0895	.0982	60	6.2500
6	.0033	.0119	.0206	.0293	.0380	.0467	.0553	.0640	.0727	.0814	.0901	.0987	70	7.2917
7	.0038	.0125	.0212	.0298	.0385	.0472	.0559	.0646	.0732	.0819	.0906	.0993	80	8.3333
8	.0043	.0130	.0217	.0304	.0391	.0477	.0564	.0651	.0738	.0825	.0911	.0998	90	9.3750
9	.0049	.0136	.0222	.0309	.0396	.0483	.0570	.0656	.0743	.0830	.0917	.1004	100	10.4167
10	.0054	.0141	.0228	.0315	.0401	.0488	.0575	.0662	.0749	.0836	.0922	.1009		
11	.0060	.0146	.0233	.0320	.0407	.0494	.0581	.0667	.0754	.0841	.0928	.1015		
12	.0065	.0152	.0239	.0326	.0412	.0499	.0586	.0673	.0760	.0846	.0933	.1020		
13	.0071	.0157	.0244	.0331	.0418	.0505	.0591	.0678	.0765	.0852	.0939	.1025		
14	.0076	.0163	.0250	.0336	.0423	.0510	.0597	.0684	.0770	.0857	.0944	.1031		
15	.0081	.0168	.0255	.0342	.0429	.0515	.0602	.0689	.0776	.0863	.0949	.1036		

Hypothenuse

0	.0000	.0838	.1676	.2514	.3351	.4189	.5027	.5865	.6703	.7541	.8378	.9216	10	10.0541
1	.0052	.0890	.1728	.2566	.3404	.4242	.5079	.5917	.6755	.7593	.8431	.9269	20	20.1082
2	.0105	.0943	.1780	.2618	.3456	.4294	.5132	.5970	.6807	.7645	.8483	.9321	30	30.1623
3	.0157	.0995	.1833	.2671	.3508	.4346	.5184	.6022	.6860	.7698	.8536	.9373	40	40.2164
4	.0209	.1047	.1885	.2723	.3561	.4399	.5237	.6074	.6912	.7750	.8588	.9426	50	50.2705
5	.0262	.1100	.1938	.2775	.3613	.4451	.5289	.6127	.6965	.7802	.8640	.9478	60	60.3246
6	.0314	.1152	.1990	.2828	.3666	.4503	.5341	.6179	.7017	.7855	.8693	.9530	70	70.3787
7	.0367	.1204	.2042	.2880	.3718	.4556	.5394	.6231	.7069	.7907	.8745	.9583	80	80.4329
8	.0419	.1257	.2095	.2932	.3770	.4608	.5446	.6284	.7122	.7960	.8797	.9635	90	90.4870
9	.0471	.1309	.2147	.2985	.3823	.4660	.5498	.6336	.7174	.8012	.8850	.9688	100	100.5411
10	.0524	.1361	.2199	.3037	.3875	.4713	.5551	.6389	.7226	.8064	.8902	.9740		
11	.0576	.1414	.2252	.3090	.3927	.4765	.5603	.6441	.7279	.8117	.8954	.9792		
12	.0628	.1466	.2304	.3142	.3980	.4818	.5655	.6493	.7331	.8169	.9007	.9845		
13	.0681	.1519	.2356	.3194	.4032	.4870	.5708	.6546	.7383	.8221	.9059	.9897		
14	.0733	.1571	.2409	.3247	.4084	.4922	.5760	.6598	.7436	.8274	.9112	.9949		
15	.0785	.1623	.2461	.3299	.4137	.4975	.5813	.6650	.7488	.8326	.9164	1.0002		

Equivalent Angle 6° 14' 31"						Altitude					Batter 1 ⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0091	.0182	.0273	.0365	.0456	.0547	.0638	.0729	.0820	.0911	.1003	10	1.0938
1	.0006	.0097	.0188	.0279	.0370	.0461	.0553	.0644	.0735	.0826	.0917	.1008	20	2.1875
2	.0011	.0103	.0194	.0285	.0376	.0467	.0558	.0649	.0741	.0832	.0923	.1014	30	3.2813
3	.0017	.0108	.0199	.0291	.0382	.0473	.0564	.0655	.0746	.0837	.0929	.1020	40	4.3750
4	.0023	.0114	.0205	.0296	.0387	.0479	.0570	.0661	.0752	.0843	.0934	.1025	50	5.4688
5	.0028	.0120	.0211	.0302	.0393	.0484	.0575	.0667	.0758	.0849	.0940	.1031	60	6.5625
6	.0034	.0125	.0216	.0308	.0399	.0490	.0581	.0672	.0763	.0854	.0946	.1037	70	7.6563
7	.0040	.0131	.0222	.0313	.0404	.0496	.0587	.0678	.0769	.0860	.0951	.1042	80	8.7500
8	.0046	.0137	.0228	.0319	.0410	.0501	.0592	.0684	.0775	.0866	.0957	.1048	90	9.8438
9	.0051	.0142	.0234	.0325	.0416	.0507	.0598	.0689	.0780	.0872	.0963	.1054	100	10.9375
10	.0057	.0148	.0239	.0330	.0422	.0513	.0604	.0695	.0786	.0877	.0968	.1060		
11	.0063	.0154	.0245	.0336	.0427	.0518	.0610	.0701	.0792	.0883	.0974	.1065		
12	.0068	.0160	.0251	.0342	.0433	.0524	.0615	.0706	.0798	.0889	.0980	.1071		
13	.0074	.0165	.0256	.0348	.0439	.0530	.0621	.0712	.0803	.0894	.0986	.1077		
14	.0080	.0171	.0262	.0353	.0444	.0535	.0627	.0718	.0809	.0900	.0991	.1082		
15	.0085	.0177	.0268	.0359	.0450	.0541	.0632	.0723	.0815	.0906	.0997	.1088		

Hypotenuse

0	.0000	.0838	.1677	.2515	.3353	.4192	.5030	.5868	.6706	.7545	.8383	.9221	10	10.0596
1	.0052	.0891	.1729	.2567	.3406	.4244	.5082	.5921	.6759	.7597	.8435	.9274	20	20.1193
2	.0105	.0943	.1781	.2620	.3458	.4296	.5135	.5973	.6811	.7650	.8488	.9326	30	30.1789
3	.0157	.0995	.1834	.2672	.3510	.4349	.5187	.6025	.6864	.7702	.8540	.9379	40	40.2385
4	.0210	.1048	.1886	.2724	.3563	.4401	.5239	.6078	.6916	.7754	.8593	.9431	50	50.2982
5	.0262	.1100	.1939	.2777	.3615	.4453	.5292	.6130	.6968	.7807	.8645	.9483	60	60.3578
6	.0314	.1153	.1991	.2829	.3668	.4506	.5344	.6182	.7021	.7859	.8697	.9536	70	70.4175
7	.0367	.1205	.2043	.2882	.3720	.4558	.5397	.6235	.7073	.7911	.8750	.9588	80	80.4771
8	.0419	.1257	.2096	.2934	.3772	.4611	.5449	.6287	.7126	.7964	.8802	.9640	90	90.5367
9	.0472	.1310	.2148	.2986	.3825	.4663	.5501	.6340	.7178	.8016	.8855	.9693	100	100.5964
10	.0524	.1362	.2201	.3039	.3877	.4715	.5554	.6392	.7230	.8069	.8907	.9745		
11	.0576	.1415	.2253	.3091	.3930	.4768	.5606	.6444	.7283	.8121	.8959	.9798		
12	.0629	.1467	.2305	.3144	.3982	.4820	.5659	.6497	.7335	.8173	.9012	.9850		
13	.0681	.1519	.2358	.3196	.4034	.4873	.5711	.6549	.7388	.8226	.9064	.9902		
14	.0734	.1572	.2410	.3248	.4087	.4925	.5763	.6602	.7440	.8278	.9117	.9955		
15	.0786	.1624	.2463	.3301	.4139	.4977	.5816	.6654	.7492	.8331	.9169	1.0007		

Equivalent Angle 6° 32' 12"

Altitude

Batter $1\frac{3}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0095	.0191	.0286	.0382	.0477	.0573	.0668	.0764	.0859	.0955	.1050	10	1.1458
1	.0006	.0101	.0197	.0292	.0388	.0483	.0579	.0674	.0770	.0865	.0961	.1056	20	2.2917
2	.0012	.0107	.0203	.0298	.0394	.0489	.0585	.0680	.0776	.0871	.0967	.1062	30	3.4375
3	.0018	.0113	.0209	.0304	.0400	.0495	.0591	.0686	.0782	.0877	.0973	.1068	40	4.5833
4	.0024	.0119	.0215	.0310	.0406	.0501	.0597	.0692	.0788	.0883	.0979	.1074	50	5.7292
5	.0030	.0125	.0221	.0316	.0412	.0507	.0603	.0698	.0794	.0889	.0985	.1080	60	6.8750
6	.0036	.0131	.0227	.0322	.0418	.0513	.0609	.0704	.0800	.0895	.0991	.1086	70	8.0208
7	.0042	.0137	.0233	.0328	.0424	.0519	.0615	.0710	.0806	.0901	.0997	.1092	80	9.1667
8	.0048	.0143	.0239	.0334	.0430	.0525	.0621	.0716	.0812	.0907	.1003	.1098	90	10.3125
9	.0054	.0149	.0245	.0340	.0436	.0531	.0627	.0722	.0818	.0913	.1009	.1104	100	11.4583
10	.0060	.0155	.0251	.0346	.0442	.0537	.0633	.0728	.0824	.0919	.1015	.1110		
11	.0066	.0161	.0257	.0352	.0448	.0543	.0639	.0734	.0830	.0925	.1021	.1116		
12	.0072	.0167	.0263	.0358	.0454	.0549	.0645	.0740	.0836	.0931	.1026	.1122		
13	.0078	.0173	.0269	.0364	.0460	.0555	.0650	.0746	.0841	.0937	.1032	.1128		
14	.0084	.0179	.0275	.0370	.0465	.0561	.0656	.0752	.0847	.0943	.1038	.1134		
15	.0090	.0185	.0280	.0376	.0471	.0567	.0662	.0758	.0853	.0949	.1044	.1140		

Hypotenuse

0	.0000	.0839	.1678	.2516	.3355	.4194	.5033	.5872	.6710	.7549	.8388	.9227	10	10.0654
1	.0052	.0891	.1730	.2569	.3408	.4246	.5085	.5924	.6763	.7601	.8440	.9279	20	20.1309
2	.0105	.0944	.1782	.2621	.3460	.4299	.5138	.5976	.6815	.7654	.8493	.9331	30	30.1963
3	.0157	.0996	.1835	.2674	.3512	.4351	.5190	.6029	.6868	.7706	.8545	.9384	40	40.2617
4	.0210	.1048	.1887	.2726	.3565	.4404	.5242	.6081	.6920	.7759	.8598	.9436	50	50.3272
5	.0262	.1101	.1940	.2778	.3617	.4456	.5295	.6134	.6972	.7811	.8650	.9489	60	60.3926
6	.0315	.1153	.1992	.2831	.3670	.4508	.5347	.6186	.7025	.7864	.8702	.9541	70	70.4580
7	.0367	.1206	.2045	.2883	.3722	.4561	.5400	.6238	.7077	.7916	.8755	.9594	80	80.5235
8	.0419	.1258	.2097	.2936	.3775	.4613	.5452	.6291	.7130	.7968	.8807	.9646	90	90.5889
9	.0472	.1311	.2149	.2988	.3827	.4666	.5505	.6343	.7182	.8021	.8860	.9698	100	100.6543
10	.0524	.1363	.2202	.3041	.3879	.4718	.5557	.6396	.7235	.8073	.8912	.9751		
11	.0577	.1415	.2254	.3093	.3932	.4771	.5609	.6448	.7287	.8126	.8965	.9803		
12	.0629	.1468	.2307	.3145	.3984	.4823	.5662	.6501	.7339	.8178	.9017	.9856		
13	.0682	.1520	.2359	.3198	.4037	.4875	.5714	.6553	.7392	.8231	.9069	.9908		
14	.0734	.1573	.2412	.3250	.4089	.4928	.5767	.6605	.7444	.8283	.9122	.9961		
15	.0786	.1625	.2464	.3303	.4142	.4980	.5819	.6658	.7497	.8335	.9174	1.0013		

Equivalent Angle 6° 49' 52"						Altitude					Batter $\frac{1}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0100	.0200	.0299	.0399	.0499	.0599	.0699	.0799	.0898	.0998	.1098	10	1.1979
1	.0006	.0106	.0206	.0306	.0406	.0505	.0605	.0705	.0805	.0905	.1005	.1104	20	2.3958
2	.0012	.0112	.0212	.0312	.0412	.0512	.0611	.0711	.0811	.0911	.1011	.1111	30	3.5938
3	.0019	.0119	.0218	.0318	.0418	.0518	.0618	.0718	.0817	.0917	.1017	.1117	40	4.7917
4	.0025	.0125	.0225	.0324	.0424	.0524	.0624	.0724	.0824	.0923	.1023	.1123	50	5.9896
5	.0031	.0131	.0231	.0331	.0431	.0530	.0630	.0730	.0830	.0930	.1029	.1129	60	7.1875
6	.0037	.0137	.0237	.0337	.0437	.0537	.0636	.0736	.0836	.0936	.1036	.1136	70	8.3854
7	.0044	.0144	.0243	.0343	.0443	.0543	.0643	.0742	.0842	.0942	.1042	.1142	80	9.5833
8	.0050	.0150	.0250	.0349	.0449	.0549	.0649	.0749	.0849	.0948	.1048	.1148	90	10.7813
9	.0056	.0156	.0256	.0356	.0455	.0555	.0655	.0755	.0855	.0955	.1054	.1154	100	11.9792
10	.0062	.0162	.0262	.0362	.0462	.0562	.0661	.0761	.0861	.0961	.1061	.1160		
11	.0069	.0168	.0268	.0368	.0468	.0568	.0668	.0767	.0867	.0967	.1067	.1167		
12	.0075	.0175	.0275	.0374	.0474	.0574	.0674	.0774	.0873	.0973	.1073	.1173		
13	.0081	.0181	.0281	.0381	.0480	.0580	.0680	.0780	.0880	.0980	.1079	.1179		
14	.0087	.0187	.0287	.0387	.0487	.0586	.0686	.0786	.0886	.0986	.1086	.1185		
15	.0094	.0193	.0293	.0393	.0493	.0593	.0693	.0792	.0892	.0992	.1092	.1192		

Hypotenuse

0	.0000	.0839	.1679	.2518	.3357	.4196	.5036	.5875	.6714	.7554	.8393	.9232	10	10.0715
1	.0052	.0892	.1731	.2570	.3410	.4249	.5088	.5927	.6767	.7606	.8445	.9285	20	20.1430
2	.0105	.0944	.1783	.2623	.3462	.4301	.5141	.5980	.6819	.7659	.8498	.9337	30	30.2145
3	.0157	.0997	.1836	.2675	.3515	.4354	.5193	.6032	.6872	.7711	.8550	.9390	40	40.2860
4	.0210	.1049	.1888	.2728	.3567	.4406	.5246	.6085	.6924	.7763	.8603	.9442	50	50.3575
5	.0262	.1102	.1941	.2780	.3619	.4459	.5298	.6137	.6977	.7816	.8655	.9494	60	60.4290
6	.0315	.1154	.1993	.2833	.3672	.4511	.5350	.6190	.7029	.7868	.8708	.9547	70	70.5005
7	.0367	.1206	.2046	.2885	.3724	.4564	.5403	.6242	.7082	.7921	.8760	.9599	80	80.5720
8	.0420	.1259	.2098	.2938	.3777	.4616	.5455	.6295	.7134	.7973	.8813	.9652	90	90.6435
9	.0472	.1311	.2151	.2990	.3829	.4669	.5508	.6347	.7186	.8026	.8865	.9704	100	100.7149
10	.0525	.1364	.2203	.3042	.3882	.4721	.5560	.6400	.7239	.8078	.8917	.9757		
11	.0577	.1416	.2256	.3095	.3934	.4773	.5613	.6452	.7291	.8131	.8970	.9809		
12	.0629	.1469	.2308	.3147	.3987	.4826	.5665	.6505	.7344	.8183	.9022	.9862		
13	.0682	.1521	.2361	.3200	.4039	.4878	.5718	.6557	.7396	.8236	.9075	.9914		
14	.0734	.1574	.2413	.3252	.4092	.4931	.5770	.6609	.7449	.8288	.9127	.9967		
15	.0787	.1626	.2465	.3305	.4144	.4983	.5823	.6662	.7501	.8340	.9180	1.0019		

Equivalent Angle 7° 07' 30"

Altitude

Batter 1½ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0104	.0208	.0313	.0417	.0521	.0625	.0729	.0833	.0938	.1042	.1146	10	1.2500
1	.0007	.0111	.0215	.0319	.0423	.0527	.0632	.0736	.0840	.0944	.1048	.1152	20	2.5000
2	.0013	.0117	.0221	.0326	.0430	.0534	.0638	.0742	.0846	.0951	.1055	.1159	30	3.7500
3	.0020	.0124	.0228	.0332	.0436	.0540	.0645	.0749	.0853	.0957	.1061	.1165	40	5.0000
4	.0026	.0130	.0234	.0339	.0443	.0547	.0651	.0755	.0859	.0964	.1068	.1172	50	6.2500
5	.0033	.0137	.0241	.0345	.0449	.0553	.0658	.0762	.0866	.0970	.1074	.1178	60	7.5000
6	.0039	.0143	.0247	.0352	.0456	.0560	.0664	.0768	.0872	.0977	.1081	.1185	70	8.7500
7	.0046	.0150	.0254	.0358	.0462	.0566	.0671	.0775	.0879	.0983	.1087	.1191	80	10.0000
8	.0052	.0156	.0260	.0365	.0469	.0573	.0677	.0781	.0885	.0990	.1094	.1198	90	11.2500
9	.0059	.0163	.0267	.0371	.0475	.0579	.0684	.0788	.0892	.0996	.1100	.1204	100	12.5000
10	.0065	.0169	.0273	.0378	.0482	.0586	.0690	.0794	.0898	.1003	.1107	.1211		
11	.0072	.0176	.0280	.0384	.0488	.0592	.0697	.0801	.0905	.1009	.1113	.1217		
12	.0078	.0182	.0286	.0391	.0495	.0599	.0703	.0807	.0911	.1016	.1120	.1224		
13	.0085	.0189	.0293	.0397	.0501	.0605	.0710	.0814	.0918	.1022	.1126	.1230		
14	.0091	.0195	.0299	.0404	.0508	.0612	.0716	.0820	.0924	.1029	.1133	.1237		
15	.0098	.0202	.0306	.0410	.0514	.0618	.0723	.0827	.0931	.1035	.1139	.1243		

Hypothénuse

0	.0000	.0840	.1680	.2519	.3359	.4199	.5039	.5879	.6719	.7558	.8398	.9238	10	10.0778
1	.0052	.0892	.1732	.2572	.3412	.4252	.5091	.5931	.6771	.7611	.8451	.9290	20	20.1556
2	.0105	.0945	.1785	.2624	.3464	.4304	.5144	.5984	.6824	.7663	.8503	.9343	30	30.2335
3	.0157	.0997	.1837	.2677	.3517	.4357	.5196	.6036	.6876	.7716	.8556	.9395	40	40.3113
4	.0210	.1050	.1890	.2729	.3569	.4409	.5249	.6089	.6929	.7768	.8608	.9448	50	50.3891
5	.0262	.1102	.1942	.2782	.3622	.4462	.5301	.6141	.6981	.7821	.8661	.9500	60	60.4669
6	.0315	.1155	.1995	.2834	.3674	.4514	.5354	.6194	.7033	.7873	.8713	.9553	70	70.5448
7	.0367	.1207	.2047	.2887	.3727	.4567	.5406	.6246	.7086	.7926	.8766	.9605	80	80.6226
8	.0420	.1260	.2100	.2939	.3779	.4619	.5459	.6299	.7138	.7978	.8818	.9658	90	90.7004
9	.0472	.1312	.2152	.2992	.3832	.4671	.5511	.6351	.7191	.8031	.8871	.9710	100	100.7782
10	.0525	.1365	.2205	.3044	.3884	.4724	.5564	.6404	.7243	.8083	.8923	.9763		
11	.0577	.1417	.2257	.3097	.3937	.4776	.5616	.6456	.7296	.8136	.8976	.9815		
12	.0630	.1470	.2310	.3149	.3989	.4829	.5669	.6509	.7348	.8188	.9028	.9868		
13	.0682	.1522	.2362	.3202	.4042	.4881	.5721	.6561	.7401	.8241	.9081	.9920		
14	.0735	.1575	.2414	.3254	.4094	.4934	.5774	.6614	.7453	.8293	.9133	.9973		
15	.0787	.1627	.2467	.3307	.4147	.4986	.5826	.6666	.7506	.8346	.9186	1.0025		

Equivalent Angle 7° 25' 07"						Altitude					Batter 1- ⁹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10 "	11"	Feet	
0	.0000	.0109	.0217	.0326	.0434	.0543	.0651	.0760	.0868	.0977	.1085	.1194	10	1.3021
1	.0007	.0115	.0224	.0332	.0441	.0549	.0658	.0766	.0875	.0983	.1092	.1200	20	2.6042
2	.0014	.0122	.0231	.0339	.0448	.0556	.0665	.0773	.0882	.0990	.1099	.1207	30	3.9063
3	.0020	.0129	.0237	.0346	.0454	.0563	.0671	.0780	.0888	.0997	.1105	.1214	40	5.2083
4	.0027	.0136	.0244	.0353	.0461	.0570	.0678	.0787	.0895	.1004	.1112	.1221	50	6.5104
5	.0034	.0142	.0251	.0359	.0468	.0576	.0685	.0793	.0902	.1010	.1119	.1227	60	7.8125
6	.0041	.0149	.0258	.0366	.0475	.0583	.0692	.0800	.0909	.1017	.1126	.1234	70	9.1146
7	.0047	.0156	.0264	.0373	.0481	.0590	.0699	.0807	.0916	.1024	.1133	.1241	80	10.4167
8	.0054	.0163	.0271	.0380	.0488	.0597	.0705	.0814	.0922	.1031	.1139	.1248	90	11.7188
9	.0061	.0170	.0278	.0387	.0495	.0604	.0712	.0821	.0929	.1038	.1146	.1255	100	13.0208
10	.0068	.0176	.0285	.0393	.0502	.0610	.0719	.0827	.0936	.1044	.1153	.1261		
11	.0075	.0183	.0292	.0400	.0509	.0617	.0726	.0834	.0943	.1051	.1160	.1268		
12	.0081	.0190	.0298	.0407	.0515	.0624	.0732	.0841	.0949	.1058	.1166	.1275		
13	.0088	.0197	.0305	.0414	.0522	.0631	.0739	.0848	.0956	.1065	.1173	.1282		
14	.0095	.0203	.0312	.0420	.0529	.0637	.0746	.0854	.0963	.1072	.1180	.1289		
15	.0102	.0210	.0319	.0427	.0536	.0644	.0753	.0861	.0970	.1078	.1187	.1295		

Hypotenuse

0	.0000	.0840	.1681	.2521	.3361	.4202	.5042	.5883	.6723	.7563	.8404	.9244	10	10.0844
1	.0053	.0893	.1733	.2574	.3414	.4254	.5095	.5935	.6775	.7616	.8456	.9297	20	20.1682
2	.0105	.0945	.1786	.2626	.3467	.4307	.5147	.5988	.6828	.7668	.8509	.9349	30	30.2532
3	.0158	.0998	.1838	.2679	.3519	.4359	.5200	.6040	.6881	.7721	.8561	.9402	40	40.3377
4	.0210	.1050	.1891	.2731	.3572	.4412	.5252	.6093	.6933	.7773	.8614	.9454	50	50.4221
5	.0263	.1103	.1943	.2784	.3624	.4464	.5305	.6145	.6986	.7826	.8666	.9507	60	60.5065
6	.0315	.1156	.1996	.2836	.3677	.4517	.5357	.6198	.7038	.7878	.8719	.9559	70	70.5909
7	.0368	.1208	.2048	.2889	.3729	.4570	.5410	.6250	.7091	.7931	.8771	.9612	80	80.6753
8	.0420	.1261	.2101	.2941	.3782	.4622	.5462	.6303	.7143	.7983	.8824	.9664	90	90.7597
9	.0473	.1313	.2153	.2994	.3834	.4675	.5515	.6355	.7196	.8036	.8876	.9717	100	100.8441
10	.0525	.1366	.2206	.3046	.3887	.4727	.5567	.6408	.7248	.8089	.8929	.9769		
11	.0578	.1418	.2258	.3099	.3939	.4780	.5620	.6460	.7301	.8141	.8981	.9822		
12	.0630	.1471	.2311	.3151	.3992	.4832	.5672	.6513	.7353	.8194	.9034	.9874		
13	.0683	.1523	.2364	.3204	.4044	.4885	.5725	.6565	.7406	.8246	.9086	.9927		
14	.0735	.1576	.2416	.3256	.4097	.4937	.5778	.6618	.7458	.8299	.9139	.9979		
15	.0788	.1628	.2469	.3309	.4149	.4990	.5830	.6670	.7511	.8351	.9192	1.0032		

Equivalent Angle 7° 42' 43"

Altitude

Batter 1 $\frac{5}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0113	.0226	.0339	.0451	.0564	.0677	.0790	.0903	.1016	.1128	.1241	10	1.3542
1	.0007	.0120	.0233	.0346	.0458	.0571	.0684	.0797	.0910	.1023	.1136	.1248	20	2.7083
2	.0014	.0127	.0240	.0353	.0465	.0578	.0691	.0804	.0917	.1030	.1143	.1255	30	4.0625
3	.0021	.0134	.0247	.0360	.0473	.0585	.0698	.0811	.0924	.1037	.1150	.1262	40	5.4167
4	.0028	.0141	.0254	.0367	.0480	.0592	.0705	.0818	.0931	.1044	.1157	.1270	50	6.7708
5	.0035	.0148	.0261	.0374	.0487	.0600	.0712	.0825	.0938	.1051	.1164	.1277	60	8.1250
6	.0042	.0155	.0268	.0381	.0494	.0607	.0719	.0832	.0945	.1058	.1171	.1284	70	9.4792
7	.0049	.0162	.0275	.0388	.0501	.0614	.0726	.0839	.0952	.1065	.1178	.1291	80	10.8333
8	.0056	.0169	.0282	.0395	.0508	.0621	.0734	.0846	.0959	.1072	.1185	.1298	90	12.1875
9	.0063	.0176	.0289	.0402	.0515	.0628	.0741	.0853	.0966	.1079	.1192	.1305	100	13.5417
10	.0071	.0183	.0296	.0409	.0522	.0635	.0748	.0860	.0973	.1086	.1199	.1312		
11	.0078	.0190	.0303	.0416	.0529	.0642	.0755	.0868	.0980	.1093	.1206	.1319		
12	.0085	.0197	.0310	.0423	.0536	.0649	.0762	.0875	.0987	.1100	.1213	.1326		
13	.0092	.0205	.0317	.0430	.0543	.0656	.0769	.0882	.0994	.1107	.1220	.1333		
14	.0099	.0212	.0324	.0437	.0550	.0663	.0776	.0889	.1002	.1114	.1227	.1340		
15	.0106	.0219	.0331	.0444	.0557	.0670	.0783	.0896	.1009	.1121	.1234	.1347		

Hypotenuse

0	.0000	.0841	.1682	.2523	.3364	.4205	.5046	.5887	.6728	.7568	.8409	.9250	10	10.0913
1	.0053	.0893	.1734	.2575	.3416	.4257	.5098	.5939	.6780	.7621	.8462	.9303	20	20.1825
2	.0105	.0946	.1787	.2628	.3469	.4310	.5151	.5992	.6833	.7674	.8515	.9355	30	30.2738
3	.0158	.0999	.1840	.2680	.3521	.4362	.5203	.6044	.6885	.7726	.8567	.9408	40	40.3651
4	.0210	.1051	.1892	.2733	.3574	.4415	.5256	.6097	.6938	.7779	.8620	.9461	50	50.4564
5	.0263	.1104	.1945	.2786	.3627	.4467	.5308	.6149	.6990	.7831	.8672	.9513	60	60.5476
6	.0315	.1156	.1997	.2838	.3679	.4520	.5361	.6202	.7043	.7884	.8725	.9566	70	70.6389
7	.0368	.1209	.2050	.2891	.3732	.4573	.5414	.6254	.7095	.7936	.8777	.9618	80	80.7302
8	.0420	.1261	.2102	.2943	.3784	.4625	.5466	.6307	.7148	.7989	.8830	.9671	90	90.8214
9	.0473	.1314	.2155	.2996	.3837	.4678	.5519	.6360	.7201	.8041	.8882	.9723	100	100.9127
10	.0526	.1367	.2207	.3048	.3889	.4730	.5571	.6412	.7253	.8094	.8935	.9776		
11	.0578	.1419	.2260	.3101	.3942	.4783	.5624	.6465	.7306	.8147	.8988	.9828		
12	.0631	.1472	.2313	.3154	.3994	.4835	.5676	.6517	.7358	.8199	.9040	.9881		
13	.0683	.1524	.2365	.3206	.4047	.4888	.5729	.6570	.7411	.8252	.9093	.9934		
14	.0736	.1577	.2418	.3259	.4100	.4941	.5781	.6622	.7463	.8304	.9145	.9986		
15	.0788	.1629	.2470	.3311	.4152	.4993	.5834	.6675	.7516	.8357	.9198	1.0039		

Equivalent Angle 8° 00' 17"						Altitude					Batter 1 $\frac{11}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0117	.0234	.0352	.0469	.0586	.0703	.0820	.0938	.1055	.1172	.1289	10	1.4063
1	.0007	.0125	.0242	.0359	.0476	.0593	.0710	.0828	.0945	.1062	.1179	.1296	20	2.8125
2	.0015	.0132	.0249	.0366	.0483	.0601	.0718	.0835	.0952	.1069	.1187	.1304	30	4.2188
3	.0022	.0139	.0256	.0374	.0491	.0608	.0725	.0842	.0959	.1077	.1194	.1311	40	5.6250
4	.0029	.0146	.0264	.0381	.0498	.0615	.0732	.0850	.0967	.1084	.1201	.1318	50	7.0313
5	.0037	.0154	.0271	.0388	.0505	.0623	.0740	.0857	.0974	.1091	.1208	.1326	60	8.4375
6	.0044	.0161	.0278	.0396	.0513	.0630	.0747	.0864	.0981	.1099	.1216	.1333	70	9.8438
7	.0051	.0168	.0286	.0403	.0520	.0637	.0754	.0872	.0989	.1106	.1223	.1340	80	11.2500
8	.0059	.0176	.0293	.0410	.0527	.0645	.0762	.0879	.0996	.1113	.1230	.1348	90	12.6563
9	.0066	.0183	.0300	.0417	.0535	.0652	.0769	.0886	.1003	.1121	.1238	.1355	100	14.0625
10	.0073	.0190	.0308	.0425	.0542	.0659	.0776	.0894	.1011	.1128	.1245	.1362		
11	.0081	.0198	.0315	.0432	.0549	.0667	.0784	.0901	.1018	.1135	.1252	.1370		
12	.0088	.0205	.0322	.0439	.0557	.0674	.0791	.0908	.1025	.1143	.1260	.1377		
13	.0095	.0212	.0330	.0447	.0564	.0681	.0798	.0916	.1033	.1150	.1267	.1384		
14	.0103	.0220	.0337	.0454	.0571	.0688	.0806	.0923	.1040	.1157	.1274	.1392		
15	.0110	.0227	.0344	.0461	.0579	.0696	.0813	.0930	.1047	.1165	.1282	.1399		

Hypotenuse														
0	.0000	.0842	.1683	.2525	.3366	.4208	.5049	.5891	.6732	.7574	.8415	.9257	10	10.0984
1	.0053	.0894	.1736	.2577	.3419	.4260	.5102	.5943	.6785	.7626	.8468	.9309	20	20.1968
2	.0105	.0947	.1788	.2630	.3471	.4313	.5154	.5996	.6837	.7679	.8521	.9362	30	30.2952
3	.0158	.0999	.1841	.2682	.3524	.4365	.5207	.6049	.6890	.7732	.8573	.9415	40	40.3936
4	.0210	.1052	.1893	.2735	.3577	.4418	.5260	.6101	.6943	.7784	.8626	.9467	50	50.4920
5	.0263	.1105	.1946	.2788	.3629	.4471	.5312	.6154	.6995	.7837	.8678	.9520	60	60.5904
6	.0316	.1157	.1999	.2840	.3682	.4523	.5365	.6206	.7048	.7889	.8731	.9572	70	70.6888
7	.0368	.1210	.2051	.2893	.3734	.4576	.5417	.6259	.7100	.7942	.8783	.9625	80	80.7871
8	.0421	.1262	.2104	.2945	.3787	.4628	.5470	.6311	.7153	.7995	.8836	.9678	90	90.8855
9	.0473	.1315	.2156	.2998	.3839	.4681	.5523	.6364	.7206	.8047	.8889	.9730	100	100.9839
10	.0526	.1367	.2209	.3051	.3892	.4734	.5575	.6417	.7258	.8100	.8941	.9783		
11	.0579	.1420	.2262	.3103	.3945	.4786	.5628	.6469	.7311	.8152	.8994	.9835		
12	.0631	.1473	.2314	.3156	.3997	.4839	.5680	.6522	.7363	.8205	.9046	.9888		
13	.0684	.1525	.2367	.3208	.4050	.4891	.5733	.6574	.7416	.8258	.9099	.9941		
14	.0736	.1578	.2419	.3261	.4102	.4944	.5786	.6627	.7469	.8310	.9152	.9993		
15	.0789	.1630	.2472	.3314	.4155	.4997	.5838	.6680	.7521	.8363	.9204	1.0046		

Equivalent Angle 8° 17' 50"					Altitude						Batter 1 $\frac{3}{4}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0122	.0243	.0365	.0486	.0608	.0729	.0851	.0972	.1094	.1215	.1337	10	1.4583
1	.0008	.0129	.0251	.0372	.0494	.0615	.0737	.0858	.0980	.1101	.1223	.1344	20	2.9167
2	.0015	.0137	.0258	.0380	.0501	.0623	.0744	.0866	.0987	.1109	.1230	.1352	30	4.3750
3	.0023	.0144	.0266	.0387	.0509	.0630	.0752	.0873	.0995	.1117	.1238	.1360	40	5.8333
4	.0030	.0152	.0273	.0395	.0516	.0638	.0760	.0881	.1003	.1124	.1246	.1367	50	7.2917
5	.0038	.0160	.0281	.0403	.0524	.0646	.0767	.0889	.1010	.1132	.1253	.1375	60	8.7500
6	.0046	.0167	.0289	.0410	.0532	.0653	.0775	.0896	.1018	.1139	.1261	.1382	70	10.2083
7	.0053	.0175	.0296	.0418	.0539	.0661	.0782	.0904	.1025	.1147	.1268	.1390	80	11.6667
8	.0061	.0182	.0304	.0425	.0547	.0668	.0790	.0911	.1033	.1155	.1276	.1398	90	13.1250
9	.0068	.0190	.0311	.0433	.0554	.0676	.0798	.0919	.1041	.1162	.1284	.1405	100	14.5833
10	.0076	.0197	.0319	.0441	.0562	.0684	.0805	.0927	.1048	.1170	.1291	.1413		
11	.0084	.0205	.0327	.0448	.0570	.0691	.0813	.0934	.1056	.1177	.1299	.1420		
12	.0091	.0213	.0334	.0456	.0577	.0699	.0820	.0942	.1063	.1185	.1306	.1428		
13	.0099	.0220	.0342	.0463	.0585	.0706	.0828	.0949	.1071	.1192	.1314	.1436		
14	.0106	.0228	.0349	.0471	.0592	.0714	.0836	.0957	.1079	.1200	.1322	.1443		
15	.0114	.0235	.0357	.0479	.0600	.0722	.0843	.0965	.1086	.1208	.1329	.1451		

Hypothénuse

0	.0000	.0842	.1684	.2526	.3369	.4211	.5053	.5895	.6737	.7579	.8421	.9264	10	10.1058
1	.0053	.0895	.1737	.2579	.3421	.4263	.5106	.5948	.6790	.7632	.8474	.9316	20	20.2116
2	.0105	.0947	.1790	.2632	.3474	.4316	.5158	.6000	.6842	.7685	.8527	.9369	30	30.3173
3	.0158	.1000	.1842	.2684	.3526	.4369	.5211	.6053	.6895	.7737	.8579	.9422	40	40.4231
4	.0211	.1053	.1895	.2737	.3579	.4421	.5263	.6106	.6948	.7790	.8632	.9474	50	50.5289
5	.0263	.1105	.1947	.2790	.3632	.4474	.5316	.6158	.7000	.7843	.8685	.9527	60	60.6347
6	.0316	.1158	.2000	.2842	.3684	.4527	.5369	.6211	.7053	.7895	.8737	.9579	70	70.7404
7	.0368	.1211	.2053	.2895	.3737	.4579	.5421	.6263	.7106	.7948	.8790	.9632	80	80.8462
8	.0421	.1263	.2105	.2948	.3790	.4632	.5474	.6316	.7158	.8000	.8843	.9685	90	90.9520
9	.0474	.1316	.2158	.3000	.3842	.4684	.5527	.6369	.7211	.8053	.8895	.9737	100	101.0578
10	.0526	.1368	.2211	.3053	.3895	.4737	.5579	.6421	.7264	.8106	.8948	.9790		
11	.0579	.1421	.2263	.3105	.3948	.4790	.5632	.6474	.7316	.8158	.9000	.9843		
12	.0632	.1474	.2316	.3158	.4000	.4842	.5684	.6527	.7369	.8211	.9053	.9895		
13	.0684	.1526	.2369	.3211	.4053	.4895	.5737	.6579	.7421	.8264	.9106	.9948		
14	.0737	.1579	.2421	.3263	.4105	.4948	.5790	.6632	.7474	.8316	.9158	1.0001		
15	.0790	.1632	.2474	.3316	.4158	.5000	.5842	.6685	.7527	.8369	.9211	1.0053		

Equivalent Angle 8° 35' 20"						Altitude					Batter $1\frac{3}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0126	.0252	.0378	.0503	.0629	.0755	.0881	.1007	.1133	.1259	.1385	10	1.5104
1	.0008	.0134	.0260	.0385	.0511	.0637	.0763	.0889	.1015	.1141	.1267	.1392	20	3.0208
2	.0016	.0142	.0267	.0393	.0519	.0645	.0771	.0897	.1023	.1149	.1274	.1400	30	4.5313
3	.0024	.0149	.0275	.0401	.0527	.0653	.0779	.0905	.1031	.1156	.1282	.1408	40	6.0417
4	.0031	.0157	.0283	.0409	.0535	.0661	.0787	.0913	.1038	.1164	.1290	.1416	50	7.5521
5	.0039	.0165	.0291	.0417	.0543	.0669	.0795	.0920	.1046	.1172	.1298	.1424	60	9.0625
6	.0047	.0173	.0299	.0425	.0551	.0677	.0802	.0928	.1054	.1180	.1306	.1432	70	10.5729
7	.0055	.0181	.0307	.0433	.0559	.0684	.0810	.0936	.1062	.1188	.1314	.1440	80	12.0833
8	.0063	.0189	.0315	.0441	.0566	.0692	.0818	.0944	.1070	.1196	.1322	.1447	90	13.5938
9	.0071	.0197	.0323	.0448	.0574	.0700	.0826	.0952	.1078	.1204	.1329	.1455	100	15.1042
10	.0079	.0205	.0330	.0456	.0582	.0708	.0834	.0960	.1086	.1211	.1337	.1463		
11	.0087	.0212	.0338	.0464	.0590	.0716	.0842	.0968	.1093	.1219	.1345	.1471		
12	.0094	.0220	.0346	.0472	.0598	.0724	.0850	.0975	.1101	.1227	.1353	.1479		
13	.0102	.0228	.0354	.0480	.0606	.0732	.0857	.0983	.1109	.1235	.1361	.1487		
14	.0110	.0236	.0362	.0488	.0614	.0739	.0865	.0991	.1117	.1243	.1369	.1495		
15	.0118	.0244	.0370	.0496	.0621	.0747	.0873	.0999	.1125	.1251	.1377	.1503		

Hypotenuse

0	.0000	.0843	.1686	.2528	.3371	.4214	.5057	.5899	.6742	.7585	.8428	.9271	10	10.1134
1	.0053	.0895	.1738	.2581	.3424	.4267	.5109	.5952	.6795	.7638	.8481	.9323	20	20.2268
2	.0105	.0948	.1791	.2634	.3476	.4319	.5162	.6005	.6848	.7690	.8533	.9376	30	30.3403
3	.0158	.1001	.1844	.2686	.3529	.4372	.5215	.6058	.6900	.7743	.8586	.9429	40	40.4537
4	.0211	.1053	.1896	.2739	.3582	.4425	.5267	.6110	.6953	.7796	.8639	.9481	50	50.5671
5	.0263	.1106	.1949	.2792	.3635	.4477	.5320	.6163	.7006	.7848	.8691	.9534	60	60.6805
6	.0316	.1159	.2002	.2844	.3687	.4530	.5373	.6216	.7058	.7901	.8744	.9587	70	70.7940
7	.0369	.1212	.2054	.2897	.3740	.4583	.5425	.6268	.7111	.7954	.8797	.9639	80	80.9074
8	.0421	.1264	.2107	.2950	.3793	.4635	.5478	.6321	.7164	.8006	.8849	.9692	90	91.0208
9	.0474	.1317	.2160	.3002	.3845	.4688	.5531	.6374	.7216	.8059	.8902	.9745	100	101.1342
10	.0527	.1370	.2212	.3055	.3898	.4741	.5583	.6426	.7269	.8112	.8955	.9797		
11	.0579	.1422	.2265	.3108	.3951	.4793	.5636	.6479	.7322	.8164	.9007	.9850		
12	.0632	.1475	.2318	.3160	.4003	.4846	.5689	.6532	.7374	.8217	.9060	.9903		
13	.0685	.1528	.2370	.3213	.4056	.4899	.5741	.6584	.7427	.8270	.9113	.9955		
14	.0737	.1580	.2423	.3266	.4109	.4951	.5794	.6637	.7480	.8323	.9165	1.0008		
15	.0790	.1633	.2476	.3318	.4161	.5004	.5847	.6690	.7532	.8375	.9218	1.0061		

Equivalent Angle 8° 52' 50"

Altitude

Batter $1\frac{7}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0130	.0260	.0391	.0521	.0651	.0781	.0911	.1042	.1172	.1302	.1432	10	1.5625
1	.0008	.0138	.0269	.0399	.0529	.0659	.0789	.0920	.1050	.1180	.1310	.1440	20	3.1250
2	.0016	.0146	.0277	.0407	.0537	.0667	.0798	.0928	.1058	.1188	.1318	.1449	30	4.6875
3	.0024	.0155	.0285	.0415	.0545	.0675	.0806	.0936	.1066	.1196	.1326	.1457	40	6.2500
4	.0033	.0163	.0293	.0423	.0553	.0684	.0814	.0944	.1074	.1204	.1335	.1465	50	7.8125
5	.0041	.0171	.0301	.0431	.0562	.0692	.0822	.0952	.1082	.1213	.1343	.1473	60	9.3750
6	.0049	.0179	.0309	.0439	.0570	.0700	.0830	.0960	.1090	.1221	.1351	.1481	70	10.9375
7	.0057	.0187	.0317	.0448	.0578	.0708	.0838	.0968	.1099	.1229	.1359	.1489	80	12.5000
8	.0065	.0195	.0326	.0456	.0586	.0716	.0846	.0977	.1107	.1237	.1367	.1497	90	14.0625
9	.0073	.0203	.0334	.0464	.0594	.0724	.0854	.0985	.1115	.1245	.1375	.1506	100	15.6250
10	.0081	.0212	.0342	.0472	.0602	.0732	.0863	.0993	.1123	.1253	.1383	.1514		
11	.0090	.0220	.0350	.0480	.0610	.0741	.0871	.1001	.1131	.1261	.1392	.1522		
12	.0098	.0228	.0358	.0488	.0618	.0749	.0879	.1009	.1139	.1270	.1400	.1530		
13	.0106	.0236	.0366	.0496	.0627	.0757	.0887	.1017	.1147	.1278	.1408	.1538		
14	.0114	.0244	.0374	.0505	.0635	.0765	.0895	.1025	.1156	.1286	.1416	.1546		
15	.0122	.0252	.0382	.0513	.0643	.0773	.0903	.1034	.1164	.1294	.1424	.1554		

Hypothénuse

0	.0000	.0843	.1687	.2530	.3374	.4217	.5061	.5904	.6748	.7591	.8434	.9278	10	10.1213
1	.0053	.0896	.1740	.2583	.3426	.4270	.5113	.5957	.6800	.7644	.8487	.9331	20	20.2427
2	.0105	.0949	.1792	.2636	.3479	.4323	.5166	.6010	.6853	.7696	.8540	.9383	30	30.3640
3	.0158	.1002	.1845	.2688	.3532	.4375	.5219	.6062	.6906	.7749	.8593	.9436	40	40.4853
4	.0211	.1054	.1898	.2741	.3585	.4428	.5272	.6115	.6958	.7802	.8645	.9489	50	50.6067
5	.0264	.1107	.1950	.2794	.3637	.4481	.5324	.6168	.7011	.7855	.8698	.9541	60	60.7280
6	.0316	.1160	.2003	.2847	.3690	.4534	.5377	.6220	.7064	.7907	.8751	.9594	70	70.8493
7	.0369	.1212	.2056	.2899	.3743	.4586	.5430	.6273	.7117	.7960	.8803	.9647	80	80.9707
8	.0422	.1265	.2109	.2952	.3796	.4639	.5482	.6326	.7169	.8013	.8856	.9700	90	91.0920
9	.0474	.1318	.2161	.3005	.3848	.4692	.5535	.6379	.7222	.8065	.8909	.9752	100	101.2133
10	.0527	.1371	.2214	.3057	.3901	.4744	.5588	.6431	.7275	.8118	.8962	.9805		
11	.0580	.1423	.2267	.3110	.3954	.4797	.5641	.6484	.7327	.8171	.9014	.9858		
12	.0633	.1476	.2319	.3163	.4006	.4850	.5693	.6537	.7380	.8224	.9067	.9910		
13	.0685	.1529	.2372	.3216	.4059	.4903	.5746	.6589	.7433	.8276	.9120	.9963		
14	.0738	.1581	.2425	.3268	.4112	.4955	.5799	.6642	.7486	.8329	.9172	1.0016		
15	.0791	.1634	.2478	.3321	.4165	.5008	.5851	.6695	.7538	.8382	.9225	1.0069		

Equivalent Angle 9° 10' 18"						Altitude					Batter 1 ⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0135	.0269	.0404	.0538	.0673	.0807	.0942	.1076	.1211	.1345	.1480	10	1.6146
1	.0008	.0143	.0278	.0412	.0547	.0681	.0816	.0950	.1085	.1219	.1354	.1488	20	3.2292
2	.0017	.0151	.0286	.0420	.0555	.0690	.0824	.0959	.1093	.1228	.1362	.1497	30	4.8438
3	.0025	.0160	.0294	.0429	.0563	.0698	.0833	.0967	.1102	.1236	.1371	.1505	40	6.4583
4	.0034	.0168	.0303	.0437	.0572	.0706	.0841	.0975	.1110	.1245	.1379	.1514	50	8.0729
5	.0042	.0177	.0311	.0446	.0580	.0715	.0849	.0984	.1118	.1253	.1388	.1522	60	9.6875
6	.0050	.0185	.0320	.0454	.0589	.0723	.0858	.0992	.1127	.1261	.1396	.1530	70	11.3021
7	.0059	.0193	.0328	.0463	.0597	.0732	.0866	.1001	.1135	.1270	.1404	.1539	80	12.9167
8	.0067	.0202	.0336	.0471	.0605	.0740	.0875	.1009	.1144	.1278	.1413	.1547	90	14.5313
9	.0076	.0210	.0345	.0479	.0614	.0748	.0883	.1018	.1152	.1287	.1421	.1556	100	16.1458
10	.0084	.0219	.0353	.0488	.0622	.0757	.0891	.1026	.1160	.1295	.1430	.1564		
11	.0093	.0227	.0362	.0496	.0631	.0765	.0900	.1034	.1169	.1303	.1438	.1573		
12	.0101	.0235	.0370	.0505	.0639	.0774	.0908	.1043	.1177	.1312	.1446	.1581		
13	.0109	.0244	.0378	.0513	.0648	.0782	.0917	.1051	.1186	.1320	.1455	.1589		
14	.0118	.0252	.0387	.0521	.0656	.0790	.0925	.1060	.1194	.1329	.1463	.1598		
15	.0126	.0261	.0395	.0530	.0664	.0799	.0933	.1068	.1203	.1337	.1472	.1606		

Hypotenuse

0	.0000	.0844	.1688	.2532	.3377	.4221	.5065	.5909	.6753	.7597	.8441	.9285	10	10.1295
1	.0053	.0897	.1741	.2585	.3429	.4273	.5118	.5962	.6806	.7650	.8494	.9338	20	20.2590
2	.0106	.0950	.1794	.2638	.3482	.4326	.5170	.6014	.6859	.7703	.8547	.9391	30	30.3885
3	.0158	.1002	.1847	.2691	.3535	.4379	.5223	.6067	.6911	.7755	.8600	.9444	40	40.5180
4	.0211	.1055	.1899	.2743	.3588	.4432	.5276	.6120	.6964	.7808	.8652	.9496	50	50.6475
5	.0264	.1108	.1952	.2796	.3640	.4484	.5329	.6173	.7017	.7861	.8705	.9549	60	60.7770
6	.0317	.1161	.2005	.2849	.3693	.4537	.5381	.6225	.7070	.7914	.8758	.9602	70	70.9065
7	.0369	.1213	.2058	.2902	.3746	.4590	.5434	.6278	.7122	.7966	.8811	.9655	80	81.0360
8	.0422	.1266	.2110	.2954	.3799	.4643	.5487	.6331	.7175	.8019	.8863	.9707	90	91.1655
9	.0475	.1319	.2163	.3007	.3851	.4695	.5540	.6384	.7228	.8072	.8916	.9760	100	101.2951
10	.0528	.1372	.2216	.3060	.3904	.4748	.5592	.6436	.7281	.8125	.8969	.9813		
11	.0580	.1424	.2269	.3113	.3957	.4801	.5645	.6489	.7333	.8177	.9022	.9866		
12	.0633	.1477	.2321	.3165	.4010	.4854	.5698	.6542	.7386	.8230	.9074	.9918		
13	.0686	.1530	.2374	.3218	.4062	.4906	.5751	.6595	.7439	.8283	.9127	.9971		
14	.0739	.1583	.2427	.3271	.4115	.4959	.5803	.6647	.7492	.8336	.9180	1.0024		
15	.0791	.1635	.2480	.3324	.4168	.5012	.5856	.6700	.7544	.8389	.9233	1.0077		

Equivalent Angle 9° 27' 45"

Altitude

Batter 2 to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0139	.0278	.0417	.0556	.0694	.0833	.0972	.1111	.1250	.1389	.1528	10	1.6667
1	.0009	.0148	.0286	.0425	.0564	.0703	.0842	.0981	.1120	.1259	.1398	.1536	20	3.3333
2	.0017	.0156	.0295	.0434	.0573	.0712	.0851	.0990	.1128	.1267	.1406	.1545	30	5.0000
3	.0026	.0165	.0304	.0443	.0582	.0720	.0859	.0998	.1137	.1276	.1415	.1554	40	6.6667
4	.0035	.0174	.0313	.0451	.0590	.0729	.0868	.1007	.1146	.1285	.1424	.1563	50	8.3333
5	.0043	.0182	.0321	.0460	.0599	.0738	.0877	.1016	.1155	.1293	.1432	.1571	60	10.0000
6	.0052	.0191	.0330	.0469	.0608	.0747	.0885	.1024	.1163	.1302	.1441	.1580	70	11.6667
7	.0061	.0200	.0339	.0477	.0616	.0755	.0894	.1033	.1172	.1311	.1450	.1589	80	13.3333
8	.0069	.0208	.0347	.0486	.0625	.0764	.0903	.1042	.1181	.1319	.1458	.1597	90	15.0000
9	.0078	.0217	.0356	.0495	.0634	.0773	.0911	.1050	.1189	.1328	.1467	.1606	100	16.6667
10	.0087	.0226	.0365	.0503	.0642	.0781	.0920	.1059	.1198	.1337	.1476	.1615		
11	.0095	.0234	.0373	.0512	.0651	.0790	.0929	.1068	.1207	.1345	.1484	.1623		
12	.0104	.0243	.0382	.0521	.0660	.0799	.0937	.1076	.1215	.1354	.1493	.1632		
13	.0113	.0252	.0391	.0530	.0668	.0807	.0946	.1085	.1224	.1363	.1502	.1641		
14	.0122	.0260	.0399	.0538	.0677	.0816	.0955	.1094	.1233	.1372	.1510	.1649		
15	.0130	.0269	.0408	.0547	.0686	.0825	.0964	.1102	.1241	.1380	.1519	.1658		

Hypotenuse

0	.0000	.0845	.1690	.2534	.3379	.4224	.5069	.5914	.6759	.7603	.8448	.9293	10	10.1379
1	.0053	.0898	.1742	.2587	.3432	.4277	.5122	.5967	.6811	.7656	.8501	.9346	20	20.2759
2	.0106	.0950	.1795	.2640	.3485	.4330	.5175	.6019	.6864	.7709	.8554	.9399	30	30.4138
3	.0158	.1003	.1848	.2693	.3538	.4383	.5227	.6072	.6917	.7762	.8607	.9452	40	40.5518
4	.0211	.1056	.1901	.2746	.3591	.4435	.5280	.6125	.6970	.7815	.8659	.9504	50	50.6897
5	.0264	.1109	.1954	.2798	.3643	.4488	.5333	.6178	.7023	.7867	.8712	.9557	60	60.8276
6	.0317	.1162	.2006	.2851	.3696	.4541	.5386	.6231	.7075	.7920	.8765	.9610	70	70.9656
7	.0370	.1214	.2059	.2904	.3749	.4594	.5439	.6283	.7128	.7973	.8818	.9663	80	81.1035
8	.0422	.1267	.2112	.2957	.3802	.4647	.5491	.6336	.7181	.8026	.8871	.9716	90	91.2414
9	.0475	.1320	.2165	.3010	.3855	.4699	.5544	.6389	.7234	.8079	.8923	.9768	100	101.3794
10	.0528	.1373	.2218	.3063	.3907	.4752	.5597	.6442	.7287	.8131	.8976	.9821		
11	.0581	.1426	.2270	.3115	.3960	.4805	.5650	.6495	.7339	.8184	.9029	.9874		
12	.0634	.1478	.2323	.3168	.4013	.4858	.5703	.6547	.7392	.8237	.9082	.9927		
13	.0686	.1531	.2376	.3221	.4066	.4911	.5755	.6600	.7445	.8290	.9135	.9980		
14	.0739	.1584	.2429	.3274	.4119	.4963	.5808	.6653	.7498	.8343	.9188	1.0032		
15	.0792	.1637	.2482	.3327	.4171	.5016	.5861	.6706	.7551	.8395	.9240	1.0085		

Equivalent Angle 9° 45' 10"						Altitude					Batter 2 ¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0143	.0286	.0430	.0573	.0716	.0859	.1003	.1146	.1289	.1432	.1576	10	1.7188
1	.0009	.0152	.0295	.0439	.0582	.0725	.0868	.1012	.1155	.1298	.1441	.1584	20	3.4375
2	.0018	.0161	.0304	.0448	.0591	.0734	.0877	.1021	.1164	.1307	.1450	.1593	30	5.1563
3	.0027	.0170	.0313	.0457	.0600	.0743	.0886	.1029	.1173	.1316	.1459	.1602	40	6.8750
4	.0036	.0179	.0322	.0465	.0609	.0752	.0895	.1038	.1182	.1325	.1468	.1611	50	8.5938
5	.0045	.0188	.0331	.0474	.0618	.0761	.0904	.1047	.1191	.1334	.1477	.1620	60	10.3125
6	.0054	.0197	.0340	.0483	.0627	.0770	.0913	.1056	.1200	.1343	.1486	.1629	70	12.0313
7	.0063	.0206	.0349	.0492	.0636	.0779	.0922	.1065	.1208	.1352	.1495	.1638	80	13.7500
8	.0072	.0215	.0358	.0501	.0645	.0788	.0931	.1074	.1217	.1361	.1504	.1647	90	15.4683
9	.0081	.0224	.0367	.0510	.0653	.0797	.0940	.1083	.1226	.1370	.1513	.1656	100	17.1875
10	.0090	.0233	.0376	.0519	.0662	.0806	.0949	.1092	.1235	.1379	.1522	.1665		
11	.0098	.0242	.0385	.0528	.0671	.0815	.0958	.1101	.1244	.1388	.1531	.1674		
12	.0107	.0251	.0394	.0537	.0680	.0824	.0967	.1110	.1253	.1396	.1540	.1683		
13	.0116	.0260	.0403	.0546	.0689	.0833	.0976	.1119	.1262	.1405	.1549	.1692		
14	.0125	.0269	.0412	.0555	.0698	.0841	.0985	.1128	.1271	.1414	.1558	.1701		
15	.0134	.0278	.0421	.0564	.0707	.0850	.0994	.1137	.1280	.1423	.1567	.1710		

Hypotenuse

0	.0000	.0846	.1691	.2537	.3382	.4228	.5073	.5919	.6764	.7610	.8456	.9301	10	10.1466
1	.0053	.0898	.1744	.2590	.3435	.4281	.5126	.5972	.6817	.7663	.8508	.9354	20	20.2933
2	.0106	.0951	.1797	.2642	.3488	.4333	.5179	.6025	.6870	.7716	.8561	.9407	30	30.4399
3	.0159	.1004	.1850	.2695	.3541	.4386	.5232	.6077	.6923	.7769	.8614	.9460	40	40.5865
4	.0211	.1057	.1902	.2748	.3594	.4439	.5285	.6130	.6976	.7821	.8667	.9512	50	50.7332
5	.0264	.1110	.1955	.2801	.3646	.4492	.5338	.6183	.7029	.7874	.8720	.9565	60	60.8793
6	.0317	.1163	.2008	.2854	.3699	.4545	.5390	.6236	.7082	.7927	.8773	.9618	70	71.0264
7	.0370	.1215	.2061	.2907	.3752	.4598	.5443	.6289	.7134	.7980	.8825	.9671	80	81.1730
8	.0423	.1268	.2114	.2959	.3805	.4651	.5496	.6342	.7187	.8033	.8878	.9724	90	91.3197
9	.0476	.1321	.2167	.3012	.3858	.4703	.5549	.6394	.7240	.8086	.8931	.9777	100	101.4663
10	.0528	.1374	.2220	.3065	.3911	.4756	.5602	.6447	.7293	.8138	.8984	.9830		
11	.0581	.1427	.2272	.3118	.3964	.4809	.5655	.6500	.7346	.8191	.9037	.9882		
12	.0634	.1480	.2325	.3171	.4016	.4862	.5707	.6553	.7399	.8244	.9090	.9935		
13	.0687	.1533	.2378	.3224	.4069	.4915	.5760	.6606	.7451	.8297	.9143	.9988		
14	.0740	.1585	.2431	.3277	.4122	.4968	.5813	.6659	.7504	.8350	.9195	1.0041		
15	.0793	.1638	.2484	.3329	.4175	.5020	.5866	.6712	.7557	.8403	.9248	1.0094		

Equivalent Angle 10° 02' 32"					Altitude					Batter 2 $\frac{1}{8}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0148	.0295	.0443	.0590	.0738	.0885	.1033	.1181	.1328	.1476	.1623	10	1.7708
1	.0009	.0157	.0304	.0452	.0600	.0747	.0895	.1042	.1190	.1337	.1485	.1632	20	3.5417
2	.0018	.0166	.0314	.0461	.0609	.0756	.0904	.1051	.1199	.1347	.1494	.1642	30	5.3125
3	.0028	.0175	.0323	.0470	.0618	.0766	.0913	.1061	.1208	.1356	.1503	.1651	40	7.0833
4	.0037	.0184	.0332	.0480	.0627	.0775	.0922	.1070	.1217	.1365	.1513	.1660	50	8.8542
5	.0046	.0194	.0341	.0489	.0636	.0784	.0932	.1079	.1227	.1374	.1522	.1669	60	10.6250
6	.0055	.0203	.0350	.0498	.0646	.0793	.0941	.1088	.1236	.1383	.1531	.1679	70	12.3958
7	.0065	.0212	.0360	.0507	.0655	.0802	.0950	.1098	.1245	.1393	.1540	.1688	80	14.1667
8	.0074	.0221	.0369	.0516	.0664	.0812	.0959	.1107	.1254	.1402	.1549	.1697	90	15.9375
9	.0083	.0231	.0378	.0526	.0673	.0821	.0968	.1116	.1264	.1411	.1559	.1706	100	17.7083
10	.0092	.0240	.0387	.0535	.0683	.0830	.0978	.1125	.1273	.1420	.1568	.1715		
11	.0101	.0249	.0397	.0544	.0692	.0839	.0987	.1134	.1282	.1430	.1577	.1725		
12	.0111	.0258	.0406	.0553	.0701	.0849	.0996	.1144	.1291	.1439	.1586	.1734		
13	.0120	.0267	.0415	.0563	.0710	.0858	.1005	.1153	.1300	.1448	.1596	.1743		
14	.0129	.0277	.0424	.0572	.0719	.0867	.1015	.1162	.1310	.1457	.1605	.1752		
15	.0138	.0286	.0433	.0581	.0729	.0876	.1024	.1171	.1319	.1466	.1614	.1762		

Hypotenuse

0	.0000	.0846	.1693	.2539	.3385	.4231	.5078	.5924	.6770	.7617	.8463	.9309	10	10.1556
1	.0053	.0899	.1745	.2592	.3438	.4284	.5131	.5977	.6823	.7670	.8516	.9362	20	20.3112
2	.0106	.0952	.1798	.2645	.3491	.4337	.5184	.6030	.6876	.7722	.8569	.9415	30	30.4667
3	.0159	.1005	.1851	.2698	.3544	.4390	.5236	.6083	.6929	.7775	.8622	.9468	40	40.6223
4	.0212	.1058	.1904	.2750	.3597	.4443	.5289	.6136	.6982	.7828	.8675	.9521	50	50.7779
5	.0264	.1111	.1957	.2803	.3650	.4496	.5342	.6189	.7035	.7881	.8727	.9574	60	60.9335
6	.0317	.1164	.2010	.2856	.3703	.4549	.5395	.6241	.7088	.7934	.8780	.9627	70	71.0891
7	.0370	.1217	.2063	.2909	.3755	.4602	.5448	.6294	.7141	.7987	.8833	.9680	80	81.2447
8	.0423	.1269	.2116	.2962	.3808	.4655	.5501	.6347	.7194	.8040	.8886	.9732	90	91.4002
9	.0476	.1322	.2169	.3015	.3861	.4708	.5554	.6400	.7246	.8093	.8939	.9785	100	101.5558
10	.0529	.1375	.2222	.3068	.3914	.4760	.5607	.6453	.7299	.8146	.8992	.9838		
11	.0582	.1428	.2274	.3121	.3967	.4813	.5660	.6506	.7352	.8199	.9045	.9891		
12	.0635	.1481	.2327	.3174	.4020	.4866	.5713	.6559	.7405	.8251	.9098	.9944		
13	.0688	.1534	.2380	.3227	.4073	.4919	.5765	.6612	.7458	.8304	.9151	.9997		
14	.0741	.1587	.2433	.3279	.4126	.4972	.5818	.6665	.7511	.8357	.9203	1.0050		
15	.0793	.1640	.2486	.3332	.4179	.5025	.5871	.6717	.7564	.8410	.9256	1.0103		

Equivalent Angle 10° 19' 52"						Altitude					Batter 2 ³ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0152	.0304	.0456	.0608	.0760	.0911	.1063	.1215	.1367	.1519	.1671	10	1.8229
1	.0009	.0161	.0313	.0465	.0617	.0769	.0921	.1073	.1225	.1377	.1529	.1681	20	3.6458
2	.0019	.0171	.0323	.0475	.0627	.0779	.0930	.1082	.1234	.1386	.1538	.1690	30	5.4688
3	.0028	.0180	.0332	.0484	.0636	.0788	.0940	.1092	.1244	.1396	.1548	.1699	40	7.2917
4	.0038	.0190	.0342	.0494	.0646	.0798	.0949	.1101	.1253	.1405	.1557	.1709	50	9.1146
5	.0047	.0199	.0351	.0503	.0655	.0807	.0959	.1111	.1263	.1415	.1567	.1718	60	10.9375
6	.0057	.0209	.0361	.0513	.0665	.0817	.0968	.1120	.1272	.1424	.1576	.1728	70	12.7604
7	.0066	.0218	.0370	.0522	.0674	.0826	.0978	.1130	.1282	.1434	.1586	.1737	80	14.5833
8	.0076	.0228	.0380	.0532	.0684	.0836	.0987	.1139	.1291	.1443	.1595	.1747	90	16.4063
9	.0085	.0237	.0389	.0541	.0693	.0845	.0997	.1149	.1301	.1453	.1605	.1756	100	18.2292
10	.0095	.0247	.0399	.0551	.0703	.0854	.1006	.1158	.1310	.1462	.1614	.1766		
11	.0104	.0256	.0408	.0560	.0712	.0864	.1016	.1168	.1320	.1472	.1624	.1775		
12	.0114	.0266	.0418	.0570	.0722	.0873	.1025	.1177	.1329	.1481	.1633	.1785		
13	.0123	.0275	.0427	.0579	.0731	.0883	.1035	.1187	.1339	.1491	.1643	.1794		
14	.0133	.0285	.0437	.0589	.0741	.0892	.1044	.1196	.1348	.1500	.1652	.1804		
15	.0142	.0294	.0446	.0598	.0750	.0902	.1054	.1203	.1358	.1510	.1662	.1813		

Hypotenuse

0	.0000	.0847	.1694	.2541	.3388	.4235	.5082	.5929	.6777	.7624	.8471	.9318	10	10.1648
1	.0053	.0900	.1747	.2594	.3441	.4288	.5135	.5982	.6829	.7677	.8524	.9371	20	20.3296
2	.0106	.0953	.1800	.2647	.3494	.4341	.5188	.6035	.6882	.7729	.8577	.9424	30	30.4944
3	.0159	.1006	.1853	.2700	.3547	.4394	.5241	.6088	.6935	.7782	.8629	.9477	40	40.6592
4	.0212	.1059	.1906	.2753	.3600	.4447	.5294	.6141	.6988	.7835	.8682	.9529	50	50.8240
5	.0265	.1112	.1959	.2806	.3653	.4500	.5347	.6194	.7041	.7888	.8735	.9582	60	60.9888
6	.0318	.1165	.2012	.2859	.3706	.4553	.5400	.6247	.7094	.7941	.8788	.9635	70	71.1536
7	.0371	.1218	.2065	.2912	.3759	.4606	.5453	.6300	.7147	.7994	.8841	.9688	80	81.3183
8	.0424	.1271	.2118	.2965	.3812	.4659	.5506	.6353	.7200	.8047	.8894	.9741	90	91.4831
9	.0476	.1324	.2171	.3018	.3865	.4712	.5559	.6406	.7253	.8100	.8947	.9794	100	101.6479
10	.0529	.1376	.2224	.3071	.3918	.4765	.5612	.6459	.7306	.8153	.9000	.9847		
11	.0582	.1429	.2276	.3124	.3971	.4818	.5665	.6512	.7359	.8206	.9053	.9900		
12	.0635	.1482	.2329	.3176	.4024	.4871	.5718	.6565	.7412	.8259	.9106	.9953		
13	.0688	.1535	.2382	.3229	.4077	.4924	.5771	.6618	.7465	.8312	.9159	1.0006		
14	.0741	.1588	.2435	.3282	.4129	.4977	.5824	.6671	.7518	.8365	.9212	1.0059		
15	.0794	.1641	.2488	.3335	.4182	.5029	.5877	.6724	.7571	.8418	.9265	1.0112		

Equivalent Angle 10° 37' 10"					Altitude					Batter 2¼ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0156	.0313	.0469	.0625	.0781	.0938	.1094	.1250	.1406	.1563	.1719	10	1.8750
1	.0010	.0166	.0322	.0479	.0635	.0791	.0947	.1104	.1260	.1416	.1572	.1729	20	3.7500
2	.0020	.0176	.0332	.0488	.0645	.0801	.0957	.1113	.1270	.1426	.1582	.1738	30	5.6250
3	.0029	.0186	.0342	.0498	.0654	.0811	.0967	.1123	.1279	.1436	.1592	.1748	40	7.5000
4	.0039	.0195	.0352	.0508	.0664	.0820	.0977	.1133	.1289	.1445	.1602	.1758	50	9.3750
5	.0049	.0205	.0361	.0518	.0674	.0830	.0986	.1143	.1299	.1455	.1611	.1768	60	11.2500
6	.0059	.0215	.0371	.0527	.0684	.0840	.0996	.1152	.1309	.1465	.1621	.1777	70	13.1250
7	.0068	.0225	.0381	.0537	.0693	.0850	.1006	.1162	.1318	.1475	.1631	.1787	80	15.0000
8	.0078	.0234	.0391	.0547	.0703	.0859	.1016	.1172	.1328	.1484	.1641	.1797	90	16.8750
9	.0088	.0244	.0400	.0557	.0713	.0869	.1025	.1182	.1338	.1494	.1650	.1807	100	18.7500
10	.0098	.0254	.0410	.0566	.0723	.0879	.1035	.1191	.1348	.1504	.1660	.1816		
11	.0107	.0264	.0420	.0576	.0732	.0889	.1045	.1201	.1357	.1514	.1670	.1826		
12	.0117	.0273	.0430	.0586	.0742	.0898	.1055	.1211	.1367	.1523	.1680	.1836		
13	.0127	.0283	.0439	.0596	.0752	.0908	.1064	.1221	.1377	.1533	.1689	.1846		
14	.0137	.0293	.0449	.0605	.0762	.0918	.1074	.1230	.1387	.1543	.1699	.1855		
15	.0146	.0303	.0459	.0615	.0771	.0928	.1084	.1240	.1396	.1553	.1709	.1865		

Hypothénuse

0	.0000	.0848	.1696	.2544	.3391	.4239	.5087	.5935	.6783	.7631	.8479	.9326	10	10.1743
1	.0053	.0901	.1749	.2597	.3444	.4292	.5140	.5988	.6836	.7684	.8532	.9379	20	20.3485
2	.0106	.0954	.1802	.2650	.3497	.4345	.5193	.6041	.6889	.7737	.8585	.9432	30	30.5228
3	.0159	.1007	.1855	.2703	.3550	.4398	.5246	.6094	.6942	.7790	.8638	.9485	40	40.6971
4	.0212	.1060	.1908	.2756	.3603	.4451	.5299	.6147	.6995	.7843	.8691	.9538	50	50.8713
5	.0265	.1113	.1961	.2809	.3656	.4504	.5352	.6200	.7048	.7896	.8744	.9591	60	61.0456
6	.0318	.1166	.2014	.2862	.3709	.4557	.5405	.6253	.7101	.7949	.8796	.9644	70	71.2198
7	.0371	.1219	.2067	.2915	.3762	.4610	.5458	.6306	.7154	.8002	.8849	.9697	80	81.3941
8	.0424	.1272	.2120	.2967	.3815	.4663	.5511	.6359	.7207	.8055	.8902	.9750	90	91.5684
9	.0477	.1325	.2173	.3020	.3868	.4716	.5564	.6412	.7260	.8108	.8955	.9803	100	101.7426
10	.0530	.1378	.2226	.3073	.3921	.4769	.5617	.6465	.7313	.8161	.9008	.9856		
11	.0583	.1431	.2279	.3126	.3974	.4822	.5670	.6518	.7366	.8214	.9061	.9909		
12	.0636	.1484	.2332	.3179	.4027	.4875	.5723	.6571	.7419	.8267	.9114	.9962		
13	.0689	.1537	.2385	.3232	.4080	.4928	.5776	.6624	.7472	.8320	.9167	1.0015		
14	.0742	.1590	.2438	.3285	.4133	.4981	.5829	.6677	.7525	.8373	.9220	1.0068		
15	.0795	.1643	.2491	.3338	.4186	.5034	.5882	.6730	.7578	.8426	.9273	1.0121		

Equivalent Angle 10° 54' 27"						Altitude					Batter 2 ⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0161	.0321	.0482	.0642	.0803	.0964	.1124	.1285	.1445	.1606	.1766	10	1.9271
1	.0010	.0171	.0331	.0492	.0652	.0813	.0974	.1134	.1295	.1455	.1616	.1777	20	3.8542
2	.0020	.0181	.0341	.0502	.0662	.0823	.0984	.1144	.1305	.1465	.1626	.1787	30	5.7813
3	.0030	.0191	.0351	.0512	.0672	.0833	.0994	.1154	.1315	.1475	.1636	.1797	40	7.7083
4	.0040	.0201	.0361	.0522	.0683	.0843	.1004	.1164	.1325	.1485	.1646	.1807	50	9.6354
5	.0050	.0211	.0371	.0532	.0693	.0853	.1014	.1174	.1335	.1495	.1656	.1817	60	11.5625
6	.0060	.0221	.0381	.0542	.0703	.0863	.1024	.1184	.1345	.1506	.1666	.1827	70	13.4896
7	.0070	.0231	.0391	.0552	.0713	.0873	.1034	.1194	.1355	.1516	.1676	.1837	80	15.4167
8	.0080	.0241	.0401	.0562	.0723	.0883	.1044	.1204	.1365	.1526	.1686	.1847	90	17.3438
9	.0090	.0251	.0412	.0572	.0733	.0893	.1054	.1214	.1375	.1536	.1696	.1857	100	19.2708
10	.0100	.0261	.0422	.0582	.0743	.0903	.1064	.1225	.1385	.1546	.1706	.1867		
11	.0110	.0271	.0432	.0592	.0753	.0913	.1074	.1235	.1395	.1556	.1716	.1877		
12	.0120	.0281	.0442	.0602	.0763	.0923	.1084	.1245	.1405	.1566	.1726	.1887		
13	.0130	.0291	.0452	.0612	.0773	.0933	.1094	.1255	.1415	.1576	.1736	.1897		
14	.0141	.0301	.0462	.0622	.0783	.0943	.1104	.1265	.1425	.1586	.1746	.1907		
15	.0151	.0311	.0472	.0632	.0793	.0954	.1114	.1275	.1435	.1596	.1756	.1917		

Hypotenuse

0	.0000	.0849	.1697	.2546	.3395	.4243	.5092	.5941	.6789	.7638	.8487	.9335	10	10.1840
1	.0053	.0902	.1750	.2599	.3448	.4296	.5145	.5994	.6842	.7691	.8540	.9388	20	20.3680
2	.0106	.0955	.1803	.2652	.3501	.4349	.5198	.6047	.6895	.7744	.8593	.9441	30	30.5520
3	.0159	.1008	.1856	.2705	.3554	.4402	.5251	.6100	.6948	.7797	.8646	.9494	40	40.7360
4	.0212	.1061	.1909	.2758	.3607	.4455	.5304	.6153	.7001	.7850	.8699	.9547	50	50.9199
5	.0265	.1114	.1963	.2811	.3660	.4509	.5357	.6206	.7055	.7903	.8752	.9601	60	61.1039
6	.0318	.1167	.2016	.2864	.3713	.4562	.5410	.6259	.7108	.7956	.8805	.9654	70	71.2879
7	.0371	.1220	.2069	.2917	.3766	.4615	.5463	.6312	.7161	.8009	.8858	.9707	80	81.4719
8	.0424	.1273	.2122	.2970	.3819	.4668	.5516	.6365	.7214	.8062	.8911	.9760	90	91.6559
9	.0477	.1326	.2175	.3023	.3872	.4721	.5569	.6418	.7267	.8115	.8964	.9813	100	101.8399
10	.0530	.1379	.2228	.3076	.3925	.4774	.5622	.6471	.7320	.8168	.9017	.9866		
11	.0583	.1432	.2281	.3129	.3978	.4827	.5675	.6524	.7373	.8221	.9070	.9919		
12	.0636	.1485	.2334	.3182	.4031	.4880	.5728	.6577	.7426	.8274	.9123	.9972		
13	.0690	.1538	.2387	.3236	.4084	.4933	.5782	.6630	.7479	.8328	.9176	1.0025		
14	.0743	.1591	.2440	.3289	.4137	.4986	.5835	.6683	.7532	.8381	.9229	1.0078		
15	.0796	.1644	.2493	.3342	.4190	.5039	.5888	.6736	.7585	.8434	.9282	1.0131		

Equivalent Angle 11° 11' 42"					Altitude					Batter 2 $\frac{3}{8}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0165	.0330	.0495	.0660	.0825	.0990	.1155	.1319	.1484	.1649	.1814	10	1.9792
1	.0010	.0175	.0340	.0505	.0670	.0835	.1000	.1165	.1330	.1495	.1660	.1825	20	3.9583
2	.0021	.0186	.0350	.0515	.0680	.0845	.1010	.1175	.1340	.1505	.1670	.1835	30	5.9375
3	.0031	.0196	.0361	.0526	.0691	.0856	.1021	.1185	.1350	.1515	.1680	.1845	40	7.9167
4	.0041	.0206	.0371	.0536	.0701	.0866	.1031	.1196	.1361	.1526	.1691	.1855	50	9.8958
5	.0052	.0216	.0381	.0546	.0711	.0876	.1041	.1206	.1371	.1536	.1701	.1866	60	11.8750
6	.0062	.0227	.0392	.0557	.0722	.0887	.1051	.1216	.1381	.1546	.1711	.1876	70	13.8542
7	.0072	.0237	.0402	.0567	.0732	.0897	.1062	.1227	.1392	.1557	.1721	.1886	80	15.8333
8	.0082	.0247	.0412	.0577	.0742	.0907	.1072	.1237	.1402	.1567	.1732	.1897	90	17.8125
9	.0093	.0258	.0423	.0588	.0752	.0917	.1082	.1247	.1412	.1577	.1742	.1907	100	19.7917
10	.0103	.0268	.0433	.0598	.0763	.0928	.1093	.1258	.1423	.1587	.1752	.1917		
11	.0113	.0278	.0443	.0608	.0773	.0938	.1103	.1268	.1433	.1598	.1763	.1928		
12	.0124	.0289	.0454	.0618	.0783	.0948	.1113	.1278	.1443	.1608	.1773	.1938		
13	.0134	.0299	.0464	.0629	.0794	.0959	.1124	.1289	.1453	.1618	.1783	.1948		
14	.0144	.0309	.0474	.0639	.0804	.0969	.1134	.1299	.1464	.1629	.1794	.1959		
15	.0155	.0320	.0484	.0649	.0814	.0979	.1144	.1309	.1474	.1639	.1804	.1969		

Hypotenuse

0	.0000	.0849	.1699	.2548	.3398	.4247	.5097	.5946	.6796	.7645	.8495	.9344	10	10.1940
1	.0053	.0903	.1752	.2602	.3451	.4301	.5150	.6000	.6849	.7699	.8548	.9398	20	20.3879
2	.0106	.0956	.1805	.2655	.3504	.4354	.5203	.6053	.6902	.7752	.8601	.9451	30	30.5819
3	.0159	.1009	.1858	.2708	.3557	.4407	.5256	.6106	.6955	.7805	.8654	.9504	40	40.7759
4	.0212	.1062	.1911	.2761	.3610	.4460	.5309	.6159	.7008	.7858	.8707	.9557	50	50.9699
5	.0265	.1115	.1964	.2814	.3663	.4513	.5362	.6212	.7061	.7911	.8760	.9610	60	61.1638
6	.0319	.1168	.2018	.2867	.3717	.4566	.5416	.6265	.7115	.7964	.8814	.9663	70	71.3578
7	.0372	.1221	.2071	.2920	.3770	.4619	.5469	.6318	.7168	.8017	.8867	.9716	80	81.5518
8	.0425	.1274	.2124	.2973	.3823	.4672	.5522	.6371	.7221	.8070	.8920	.9769	90	91.7458
9	.0478	.1327	.2177	.3026	.3876	.4725	.5575	.6424	.7274	.8123	.8973	.9822	100	101.9397
10	.0531	.1380	.2230	.3079	.3929	.4778	.5628	.6477	.7327	.8176	.9026	.9875		
11	.0584	.1434	.2283	.3133	.3982	.4832	.5681	.6531	.7380	.8230	.9079	.9929		
12	.0637	.1487	.2336	.3186	.4035	.4885	.5734	.6584	.7433	.8283	.9132	.9982		
13	.0690	.1540	.2389	.3239	.4088	.4938	.5787	.6637	.7486	.8336	.9185	1.0035		
14	.0743	.1593	.2442	.3292	.4141	.4991	.5840	.6690	.7539	.8389	.9238	1.0088		
15	.0796	.1646	.2495	.3345	.4194	.5044	.5893	.6743	.7592	.8442	.9291	1.0141		

Equivalent Angle 11° 28' 55"						Altitude					Batter 2 ⁷ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0169	.0339	.0508	.0677	.0846	.1016	.1185	.1354	.1523	.1693	.1862	10	2.0313
1	.0011	.0180	.0349	.0518	.0688	.0857	.1026	.1195	.1365	.1534	.1703	.1873	20	4.0625
2	.0021	.0190	.0360	.0529	.0698	.0868	.1037	.1206	.1375	.1545	.1714	.1883	30	6.0938
3	.0032	.0201	.0370	.0540	.0709	.0878	.1047	.1217	.1386	.1555	.1724	.1894	40	8.1250
4	.0042	.0212	.0381	.0550	.0719	.0889	.1058	.1227	.1396	.1566	.1735	.1904	50	10.1563
5	.0053	.0222	.0391	.0561	.0730	.0899	.1069	.1238	.1407	.1576	.1746	.1915	60	12.1875
6	.0063	.0233	.0402	.0571	.0741	.0910	.1079	.1248	.1418	.1587	.1756	.1925	70	14.2188
7	.0074	.0243	.0413	.0582	.0751	.0920	.1090	.1259	.1428	.1597	.1767	.1936	80	16.2500
8	.0085	.0254	.0423	.0592	.0762	.0931	.1100	.1270	.1439	.1608	.1777	.1947	90	18.2813
9	.0095	.0264	.0434	.0603	.0772	.0942	.1111	.1280	.1449	.1619	.1788	.1957	100	20.3125
10	.0106	.0275	.0444	.0614	.0783	.0952	.1121	.1291	.1460	.1629	.1799	.1968		
11	.0116	.0286	.0455	.0624	.0793	.0963	.1132	.1301	.1471	.1640	.1809	.1978		
12	.0127	.0296	.0465	.0635	.0804	.0973	.1143	.1312	.1481	.1650	.1820	.1989		
13	.0138	.0307	.0476	.0645	.0815	.0984	.1153	.1322	.1492	.1661	.1830	.2000		
14	.0148	.0317	.0487	.0656	.0825	.0994	.1164	.1333	.1502	.1672	.1841	.2010		
15	.0159	.0328	.0497	.0667	.0836	.1005	.1174	.1344	.1513	.1682	.1851	.2021		

Hypotenuse

0	.0000	.0850	.1701	.2551	.3401	.4252	.5102	.5952	.6803	.7653	.8504	.9354	10	10.2042
1	.0053	.0903	.1754	.2604	.3455	.4305	.5155	.6006	.6856	.7706	.8557	.9407	20	20.4084
2	.0106	.0957	.1807	.2657	.3508	.4358	.5208	.6059	.6909	.7759	.8610	.9460	30	30.6126
3	.0159	.1010	.1860	.2710	.3561	.4411	.5262	.6112	.6962	.7813	.8663	.9513	40	40.8169
4	.0213	.1063	.1913	.2764	.3614	.4464	.5315	.6165	.7015	.7866	.8716	.9566	50	51.0211
5	.0266	.1116	.1966	.2817	.3667	.4517	.5368	.6218	.7069	.7919	.8769	.9620	60	61.2253
6	.0319	.1169	.2020	.2870	.3720	.4571	.5421	.6271	.7122	.7972	.8822	.9673	70	71.4295
7	.0372	.1222	.2073	.2923	.3773	.4624	.5474	.6324	.7175	.8025	.8876	.9726	80	81.6337
8	.0425	.1276	.2126	.2976	.3827	.4677	.5527	.6378	.7228	.8078	.8929	.9779	90	91.8379
9	.0478	.1329	.2179	.3029	.3880	.4730	.5580	.6431	.7281	.8131	.8982	.9832	100	102.0421
10	.0531	.1382	.2232	.3083	.3933	.4783	.5634	.6484	.7334	.8185	.9035	.9885		
11	.0585	.1435	.2285	.3136	.3986	.4836	.5687	.6537	.7387	.8238	.9088	.9938		
12	.0638	.1488	.2338	.3189	.4039	.4890	.5740	.6590	.7441	.8291	.9141	.9992		
13	.0691	.1541	.2392	.3242	.4092	.4943	.5793	.6643	.7494	.8344	.9194	1.0045		
14	.0744	.1594	.2445	.3295	.4145	.4996	.5846	.6697	.7547	.8397	.9248	1.0098		
15	.0797	.1648	.2498	.3348	.4199	.5049	.5899	.6750	.7600	.8450	.9301	1.0151		

Equivalent Angle 11° 46' 06"						Altitude							Batter 2½ to 12	
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0174	.0347	.0521	.0694	.0868	.1042	.1215	.1389	.1563	.1736	.1910	10	2.0833
1	.0011	.0184	.0358	.0532	.0705	.0879	.1053	.1226	.1400	.1573	.1747	.1921	20	4.1667
2	.0022	.0195	.0369	.0543	.0716	.0890	.1063	.1237	.1411	.1584	.1758	.1931	30	6.2500
3	.0033	.0206	.0380	.0553	.0727	.0901	.1074	.1248	.1421	.1595	.1769	.1942	40	8.3333
4	.0043	.0217	.0391	.0564	.0738	.0911	.1085	.1259	.1432	.1606	.1780	.1953	50	10.4167
5	.0054	.0228	.0401	.0575	.0749	.0922	.1096	.1270	.1443	.1617	.1790	.1964	60	12.5000
6	.0065	.0239	.0412	.0586	.0760	.0933	.1107	.1280	.1454	.1628	.1801	.1975	70	14.5833
7	.0076	.0250	.0423	.0597	.0770	.0944	.1118	.1291	.1465	.1638	.1812	.1986	80	16.6667
8	.0087	.0260	.0434	.0608	.0781	.0955	.1128	.1302	.1476	.1649	.1823	.1997	90	18.7500
9	.0098	.0271	.0445	.0618	.0792	.0966	.1139	.1313	.1487	.1660	.1834	.2007	100	20.8333
10	.0109	.0282	.0456	.0629	.0803	.0977	.1150	.1324	.1497	.1671	.1845	.2018		
11	.0119	.0293	.0467	.0640	.0814	.0987	.1161	.1335	.1508	.1682	.1855	.2029		
12	.0130	.0304	.0477	.0651	.0825	.0998	.1172	.1345	.1519	.1693	.1866	.2040		
13	.0141	.0315	.0488	.0662	.0836	.1009	.1183	.1356	.1530	.1704	.1877	.2051		
14	.0152	.0326	.0499	.0673	.0846	.1020	.1194	.1367	.1541	.1714	.1888	.2062		
15	.0163	.0336	.0510	.0684	.0857	.1031	.1204	.1378	.1552	.1725	.1899	.2072		

Hypotenuse

0	.0000	.0851	.1702	.2554	.3405	.4256	.5107	.5959	.6810	.7661	.8512	.9363	10	10.2147
1	.0053	.0904	.1756	.2607	.3458	.4309	.5161	.6012	.6863	.7714	.8565	.9417	20	20.4294
2	.0106	.0958	.1809	.2660	.3511	.4363	.5214	.6065	.6916	.7767	.8619	.9470	30	30.6441
3	.0160	.1011	.1862	.2713	.3565	.4416	.5267	.6118	.6969	.7821	.8672	.9523	40	40.8588
4	.0213	.1064	.1915	.2766	.3618	.4469	.5320	.6171	.7023	.7874	.8725	.9576	50	51.0735
5	.0266	.1117	.1968	.2820	.3671	.4522	.5373	.6225	.7076	.7927	.8778	.9629	60	61.2883
6	.0319	.1170	.2022	.2873	.3724	.4575	.5427	.6278	.7129	.7980	.8831	.9683	70	71.5030
7	.0372	.1224	.2075	.2926	.3777	.4629	.5480	.6331	.7182	.8033	.8885	.9736	80	81.7177
8	.0426	.1277	.2128	.2979	.3831	.4682	.5533	.6384	.7235	.8087	.8938	.9789	90	91.9324
9	.0479	.1330	.2181	.3032	.3884	.4735	.5586	.6437	.7289	.8140	.8991	.9842	100	102.1471
10	.0532	.1383	.2234	.3086	.3937	.4788	.5639	.6491	.7342	.8193	.9044	.9895		
11	.0585	.1436	.2288	.3139	.3990	.4841	.5693	.6544	.7395	.8246	.9097	.9949		
12	.0638	.1490	.2341	.3192	.4043	.4895	.5746	.6597	.7448	.8299	.9151	1.0002		
13	.0692	.1543	.2394	.3245	.4097	.4948	.5799	.6650	.7501	.8353	.9204	1.0055		
14	.0745	.1596	.2447	.3298	.4150	.5001	.5852	.6703	.7555	.8406	.9257	1.0108		
15	.0798	.1649	.2500	.3352	.4203	.5054	.5905	.6757	.7608	.8459	.9310	1.0162		

Equivalent Angle 12° 03' 14"						Altitude					Batter 2 ⁹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0178	.0356	.0534	.0712	.0890	.1068	.1246	.1424	.1602	.1780	.1957	10	2.1354
1	.0011	.0189	.0367	.0545	.0723	.0901	.1079	.1257	.1435	.1613	.1791	.1969	20	4.2708
2	.0022	.0200	.0378	.0556	.0734	.0912	.1090	.1268	.1446	.1624	.1802	.1980	30	6.4063
3	.0033	.0211	.0389	.0567	.0745	.0923	.1101	.1279	.1457	.1635	.1813	.1991	40	8.5417
4	.0044	.0222	.0400	.0578	.0756	.0934	.1112	.1290	.1468	.1646	.1824	.2002	50	10.6771
5	.0056	.0234	.0412	.0589	.0767	.0945	.1123	.1301	.1479	.1657	.1835	.2013	60	12.8125
6	.0067	.0245	.0423	.0601	.0779	.0956	.1134	.1312	.1490	.1668	.1846	.2024	70	14.9479
7	.0078	.0256	.0434	.0612	.0790	.0968	.1146	.1324	.1501	.1679	.1857	.2035	80	17.0833
8	.0089	.0267	.0445	.0623	.0801	.0979	.1157	.1335	.1513	.1691	.1868	.2046	90	19.2188
9	.0100	.0278	.0456	.0634	.0812	.0990	.1168	.1346	.1524	.1702	.1880	.2058	100	21.3542
10	.0111	.0289	.0467	.0645	.0823	.1001	.1179	.1357	.1535	.1713	.1891	.2069		
11	.0122	.0300	.0478	.0656	.0834	.1012	.1190	.1368	.1546	.1724	.1902	.2080		
12	.0133	.0311	.0489	.0667	.0845	.1023	.1201	.1379	.1557	.1735	.1913	.2091		
13	.0145	.0323	.0500	.0678	.0856	.1034	.1212	.1390	.1568	.1746	.1924	.2102		
14	.0156	.0334	.0512	.0690	.0868	.1045	.1223	.1401	.1579	.1757	.1935	.2113		
15	.0167	.0345	.0523	.0701	.0879	.1057	.1235	.1412	.1590	.1768	.1946	.2124		

Hypotenuse

0	.0000	.0852	.1704	.2556	.3408	.4261	.5113	.5965	.6817	.7669	.8521	.9373	10	10.2255
1	.0053	.0905	.1758	.2610	.3462	.4314	.5166	.6018	.6870	.7722	.8574	.9427	20	20.4509
2	.0107	.0959	.1811	.2663	.3515	.4367	.5219	.6071	.6923	.7776	.8628	.9480	30	30.6764
3	.0160	.1012	.1864	.2716	.3568	.4420	.5273	.6125	.6977	.7829	.8681	.9533	40	40.9018
4	.0213	.1065	.1917	.2769	.3622	.4474	.5326	.6178	.7030	.7882	.8734	.9586	50	51.1273
5	.0266	.1118	.1971	.2823	.3675	.4527	.5379	.6231	.7083	.7935	.8788	.9640	60	61.3528
6	.0320	.1172	.2024	.2876	.3728	.4580	.5432	.6284	.7137	.7989	.8841	.9693	70	71.5782
7	.0373	.1225	.2077	.2929	.3781	.4633	.5486	.6338	.7190	.8042	.8894	.9746	80	81.8037
8	.0426	.1278	.2130	.2982	.3835	.4687	.5539	.6391	.7243	.8095	.8947	.9799	90	92.0291
9	.0479	.1331	.2184	.3036	.3888	.4740	.5592	.6444	.7296	.8148	.9001	.9853	100	102.2546
10	.0533	.1385	.2237	.3089	.3941	.4793	.5645	.6497	.7350	.8202	.9054	.9906		
11	.0586	.1438	.2290	.3142	.3994	.4846	.5699	.6551	.7403	.8255	.9107	.9959		
12	.0639	.1491	.2343	.3195	.4048	.4900	.5752	.6604	.7456	.8308	.9160	1.0012		
13	.0692	.1544	.2397	.3249	.4101	.4953	.5805	.6657	.7509	.8361	.9214	1.0066		
14	.0746	.1598	.2450	.3302	.4154	.5006	.5858	.6710	.7563	.8415	.9267	1.0119		
15	.0799	.1651	.2503	.3355	.4207	.5059	.5912	.6764	.7616	.8468	.9320	1.0172		

Equivalent Angle 12° 20' 20"							Altitude					Batter 2 $\frac{5}{8}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0182	.0365	.0547	.0729	.0911	.1094	.1276	.1458	.1641	.1823	.2005	10	2.1875
1	.0011	.0194	.0376	.0558	.0741	.0923	.1105	.1287	.1470	.1652	.1834	.2017	20	4.3750
2	.0023	.0205	.0387	.0570	.0752	.0934	.1117	.1299	.1481	.1663	.1846	.2028	30	6.5625
3	.0034	.0216	.0399	.0581	.0763	.0946	.1128	.1310	.1493	.1675	.1857	.2039	40	8.7500
4	.0046	.0228	.0410	.0592	.0775	.0957	.1139	.1322	.1504	.1686	.1868	.2051	50	10.9375
5	.0057	.0239	.0422	.0604	.0786	.0968	.1151	.1333	.1515	.1698	.1880	.2062	60	13.1250
6	.0068	.0251	.0433	.0615	.0798	.0980	.1162	.1344	.1527	.1709	.1891	.2074	70	15.3125
7	.0080	.0262	.0444	.0627	.0809	.0991	.1174	.1356	.1538	.1720	.1903	.2085	80	17.5000
8	.0091	.0273	.0456	.0638	.0820	.1003	.1185	.1367	.1549	.1732	.1914	.2096	90	19.6875
9	.0103	.0285	.0467	.0649	.0832	.1014	.1196	.1379	.1561	.1743	.1925	.2108	100	21.8750
10	.0114	.0296	.0479	.0661	.0843	.1025	.1208	.1390	.1572	.1755	.1937	.2119		
11	.0125	.0308	.0490	.0672	.0854	.1037	.1219	.1401	.1584	.1766	.1948	.2131		
12	.0137	.0319	.0501	.0684	.0866	.1048	.1230	.1413	.1595	.1777	.1960	.2142		
13	.0148	.0330	.0513	.0695	.0877	.1060	.1242	.1424	.1606	.1789	.1971	.2153		
14	.0160	.0342	.0524	.0706	.0889	.1071	.1253	.1436	.1618	.1800	.1982	.2165		
15	.0171	.0353	.0535	.0718	.0900	.1082	.1265	.1447	.1629	.1812	.1994	.2176		

Hypothénuse

0	.0000	.0853	.1706	.2559	.3412	.4265	.5118	.5971	.6824	.7677	.8530	.9383	10	10.2365
1	.0053	.0906	.1759	.2612	.3465	.4319	.5172	.6025	.6878	.7731	.8584	.9437	20	20.4729
2	.0107	.0960	.1813	.2666	.3519	.4372	.5225	.6078	.6931	.7784	.8637	.9490	30	30.7094
3	.0160	.1013	.1866	.2719	.3572	.4425	.5278	.6131	.6984	.7837	.8690	.9543	40	40.9458
4	.0213	.1066	.1919	.2772	.3625	.4478	.5331	.6185	.7038	.7891	.8744	.9597	50	51.1823
5	.0267	.1120	.1973	.2826	.3679	.4532	.5385	.6238	.7091	.7944	.8797	.9650	60	61.4188
6	.0320	.1173	.2026	.2879	.3732	.4585	.5438	.6291	.7144	.7997	.8850	.9703	70	71.6552
7	.0373	.1226	.2079	.2932	.3785	.4638	.5491	.6344	.7198	.8051	.8904	.9757	80	81.8917
8	.0427	.1280	.2133	.2986	.3839	.4692	.5545	.6398	.7251	.8104	.8957	.9810	90	92.1282
9	.0480	.1333	.2186	.3039	.3892	.4745	.5598	.6451	.7304	.8157	.9010	.9863	100	102.3646
10	.0533	.1386	.2239	.3092	.3945	.4798	.5651	.6504	.7357	.8210	.9064	.9917		
11	.0586	.1440	.2293	.3146	.3999	.4852	.5705	.6558	.7411	.8264	.9117	.9970		
12	.0640	.1493	.2346	.3199	.4052	.4905	.5758	.6611	.7464	.8317	.9170	1.0023		
13	.0693	.1546	.2399	.3252	.4105	.4958	.5811	.6664	.7517	.8370	.9223	1.0077		
14	.0746	.1599	.2452	.3306	.4159	.5012	.5865	.6718	.7571	.8424	.9277	1.0130		
15	.0800	.1653	.2506	.3359	.4212	.5065	.5918	.6771	.7624	.8477	.9330	1.0183		

Equivalent Angle 12° 37' 25"						Altitude					Batter 2 ¹¹ / ₁₆ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0187	.0373	.0560	.0747	.0933	.1120	.1306	.1493	.1680	.1866	.2053	10 2.2396
1	.0012	.0198	.0385	.0572	.0758	.0945	.1131	.1318	.1505	.1691	.1878	.2065	20 4.4792
2	.0023	.0210	.0397	.0583	.0770	.0956	.1143	.1330	.1516	.1703	.1890	.2076	30 6.7188
3	.0035	.0222	.0408	.0595	.0782	.0968	.1155	.1341	.1528	.1715	.1901	.2088	40 8.9583
4	.0047	.0233	.0420	.0607	.0793	.0980	.1166	.1353	.1540	.1726	.1913	.2100	50 11.1979
5	.0058	.0245	.0432	.0618	.0805	.0991	.1178	.1365	.1551	.1738	.1925	.2111	60 13.4375
6	.0070	.0257	.0443	.0630	.0817	.1003	.1190	.1376	.1563	.1750	.1936	.2123	70 15.6771
7	.0082	.0268	.0455	.0642	.0828	.1015	.1201	.1388	.1575	.1761	.1948	.2135	80 17.9167
8	.0093	.0280	.0467	.0653	.0840	.1026	.1213	.1400	.1586	.1773	.1960	.2146	90 20.1563
9	.0105	.0292	.0478	.0665	.0852	.1038	.1225	.1411	.1598	.1785	.1971	.2158	100 22.3958
10	.0117	.0303	.0490	.0677	.0863	.1050	.1236	.1423	.1610	.1796	.1983	.2170	
11	.0128	.0315	.0502	.0688	.0875	.1061	.1248	.1435	.1621	.1808	.1995	.2181	
12	.0140	.0327	.0513	.0700	.0887	.1073	.1260	.1446	.1633	.1820	.2006	.2193	
13	.0152	.0338	.0525	.0712	.0898	.1085	.1271	.1458	.1645	.1831	.2018	.2205	
14	.0163	.0350	.0537	.0723	.0910	.1096	.1283	.1470	.1656	.1843	.2030	.2216	
15	.0175	.0362	.0548	.0735	.0921	.1108	.1295	.1481	.1668	.1855	.2041	.2228	

Hypothenuse

0	.0000	.0854	.1708	.2562	.3416	.4270	.5124	.5978	.6832	.7686	.8540	.9394	10 10.2477
1	.0053	.0907	.1761	.2615	.3469	.4323	.5177	.6031	.6885	.7739	.8593	.9447	20 20.4954
2	.0107	.0961	.1815	.2669	.3523	.4377	.5231	.6085	.6939	.7793	.8647	.9500	30 30.7432
3	.0160	.1014	.1868	.2722	.3576	.4430	.5284	.6138	.6992	.7846	.8700	.9554	40 40.9909
4	.0213	.1067	.1921	.2775	.3629	.4483	.5337	.6191	.7045	.7899	.8753	.9607	50 51.2386
5	.0267	.1121	.1975	.2829	.3683	.4537	.5391	.6245	.7099	.7953	.8807	.9661	60 61.4863
6	.0320	.1174	.2028	.2882	.3736	.4590	.5444	.6298	.7152	.8006	.8860	.9714	70 71.7340
7	.0374	.1228	.2082	.2936	.3790	.4643	.5497	.6351	.7205	.8059	.8913	.9767	80 81.9817
8	.0427	.1281	.2135	.2989	.3843	.4697	.5551	.6405	.7259	.8113	.8967	.9821	90 92.2295
9	.0480	.1334	.2188	.3042	.3896	.4750	.5604	.6458	.7312	.8166	.9020	.9874	100 102.4772
10	.0534	.1388	.2242	.3096	.3950	.4804	.5658	.6512	.7366	.8220	.9074	.9927	
11	.0587	.1441	.2295	.3149	.4003	.4857	.5711	.6565	.7419	.8273	.9127	.9981	
12	.0640	.1494	.2348	.3202	.4056	.4910	.5764	.6618	.7472	.8326	.9180	1.0034	
13	.0694	.1548	.2402	.3256	.4110	.4964	.5818	.6672	.7526	.8380	.9234	1.0088	
14	.0747	.1601	.2455	.3309	.4163	.5017	.5871	.6725	.7579	.8433	.9287	1.0141	
15	.0801	.1655	.2509	.3363	.4217	.5070	.5924	.6778	.7632	.8486	.9340	1.0194	

Equivalent Angle 12° 54' 27"					Altitude					Batter 2 $\frac{3}{4}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0191	.0382	.0573	.0764	.0955	.1146	.1337	.1528	.1719	.1910	.2101	10	2.2917
1	.0012	.0203	.0394	.0585	.0776	.0967	.1158	.1349	.1540	.1731	.1922	.2113	20	4.5833
2	.0024	.0215	.0406	.0597	.0788	.0979	.1170	.1361	.1552	.1743	.1934	.2125	30	6.8750
3	.0036	.0227	.0418	.0609	.0800	.0991	.1182	.1373	.1564	.1755	.1946	.2137	40	9.1667
4	.0048	.0239	.0430	.0621	.0812	.1003	.1194	.1385	.1576	.1766	.1957	.2148	50	11.4583
5	.0060	.0251	.0442	.0633	.0824	.1015	.1206	.1396	.1587	.1778	.1969	.2160	60	13.7500
6	.0072	.0263	.0454	.0645	.0836	.1026	.1217	.1408	.1599	.1790	.1981	.2172	70	16.0417
7	.0084	.0275	.0465	.0656	.0847	.1038	.1229	.1420	.1611	.1802	.1993	.2184	80	18.3333
8	.0095	.0286	.0477	.0668	.0859	.1050	.1241	.1432	.1623	.1814	.2005	.2196	90	20.6250
9	.0107	.0298	.0489	.0680	.0871	.1062	.1253	.1444	.1635	.1826	.2017	.2208	100	22.9167
10	.0119	.0310	.0501	.0692	.0883	.1074	.1265	.1456	.1647	.1838	.2029	.2220		
11	.0131	.0322	.0513	.0704	.0895	.1086	.1277	.1468	.1659	.1850	.2041	.2232		
12	.0143	.0334	.0525	.0716	.0907	.1098	.1289	.1480	.1671	.1862	.2053	.2244		
13	.0155	.0346	.0537	.0728	.0919	.1110	.1301	.1492	.1683	.1874	.2065	.2256		
14	.0167	.0358	.0549	.0740	.0931	.1122	.1313	.1504	.1695	.1886	.2077	.2268		
15	.0179	.0370	.0561	.0752	.0943	.1134	.1325	.1516	.1707	.1898	.2089	.2280		

Hypotenuse

0	.0000	.0855	.1710	.2565	.3420	.4275	.5130	.5985	.6839	.7694	.8549	.9404	10	10.2592
1	.0053	.0908	.1763	.2618	.3473	.4328	.5183	.6038	.6893	.7748	.8603	.9458	20	20.5185
2	.0107	.0962	.1817	.2672	.3527	.4382	.5236	.6091	.6946	.7801	.8656	.9511	30	30.7777
3	.0160	.1015	.1870	.2725	.3580	.4435	.5290	.6145	.7000	.7855	.8710	.9565	40	41.0369
4	.0214	.1069	.1924	.2779	.3633	.4488	.5343	.6198	.7053	.7908	.8763	.9618	50	51.2961
5	.0267	.1122	.1977	.2832	.3687	.4542	.5397	.6252	.7107	.7962	.8817	.9671	60	61.5554
6	.0321	.1176	.2030	.2885	.3740	.4595	.5450	.6305	.7160	.8015	.8870	.9725	70	71.8146
7	.0374	.1229	.2084	.2939	.3794	.4649	.5504	.6359	.7214	.8068	.8923	.9778	80	82.0738
8	.0427	.1282	.2137	.2992	.3847	.4702	.5557	.6412	.7267	.8122	.8977	.9832	90	92.3330
9	.0481	.1336	.2191	.3046	.3901	.4756	.5611	.6465	.7320	.8175	.9030	.9885	100	102.5923
10	.0534	.1389	.2244	.3099	.3954	.4809	.5664	.6519	.7374	.8229	.9084	.9939		
11	.0588	.1443	.2298	.3153	.4008	.4862	.5717	.6572	.7427	.8282	.9137	.9992		
12	.0641	.1496	.2351	.3206	.4061	.4916	.5771	.6626	.7481	.8336	.9191	1.0045		
13	.0695	.1550	.2405	.3259	.4114	.4969	.5824	.6679	.7534	.8389	.9244	1.0099		
14	.0748	.1603	.2458	.3313	.4168	.5023	.5878	.6733	.7588	.8442	.9297	1.0152		
15	.0802	.1656	.2511	.3366	.4221	.5076	.5931	.6786	.7641	.8496	.9351	1.0206		

Equivalent Angle 13° 11' 26"						Altitude					Batter 2 $\frac{13}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0195	.0391	.0586	.0781	.0977	.1172	.1367	.1563	.1758	.1953	.2148	10	2.3438
1	.0012	.0208	.0403	.0598	.0793	.0989	.1184	.1379	.1575	.1770	.1965	.2161	20	4.6875
2	.0024	.0220	.0415	.0610	.0806	.1001	.1196	.1392	.1587	.1782	.1978	.2173	30	7.0313
3	.0037	.0232	.0427	.0623	.0818	.1013	.1208	.1404	.1599	.1794	.1990	.2185	40	9.3750
4	.0049	.0244	.0439	.0635	.0830	.1025	.1221	.1416	.1611	.1807	.2002	.2197	50	11.7188
5	.0061	.0256	.0452	.0647	.0842	.1038	.1233	.1428	.1624	.1819	.2014	.2209	60	14.0625
6	.0073	.0269	.0464	.0659	.0854	.1050	.1245	.1440	.1636	.1831	.2026	.2222	70	16.4063
7	.0085	.0281	.0476	.0671	.0867	.1062	.1257	.1453	.1648	.1843	.2039	.2234	80	18.7500
8	.0098	.0293	.0488	.0684	.0879	.1074	.1270	.1465	.1660	.1855	.2051	.2246	90	21.0938
9	.0110	.0305	.0500	.0696	.0891	.1086	.1282	.1477	.1672	.1868	.2063	.2258	100	23.4375
10	.0122	.0317	.0513	.0708	.0903	.1099	.1294	.1489	.1685	.1880	.2075	.2271		
11	.0134	.0330	.0525	.0720	.0916	.1111	.1306	.1501	.1697	.1892	.2087	.2283		
12	.0146	.0342	.0537	.0732	.0928	.1123	.1318	.1514	.1709	.1904	.2100	.2295		
13	.0159	.0354	.0549	.0745	.0940	.1135	.1331	.1526	.1721	.1917	.2112	.2307		
14	.0171	.0366	.0562	.0757	.0952	.1147	.1343	.1538	.1733	.1929	.2124	.2319		
15	.0183	.0378	.0574	.0769	.0964	.1160	.1355	.1550	.1746	.1941	.2136	.2332		

Hypotenuse

0	.0000	.0856	.1712	.2568	.3424	.4280	.5135	.5991	.6847	.7703	.8559	.9415	10	10.2710
1	.0053	.0909	.1765	.2621	.3477	.4333	.5189	.6045	.6901	.7757	.8613	.9469	20	20.5420
2	.0107	.0963	.1819	.2675	.3531	.4387	.5242	.6098	.6954	.7810	.8666	.9522	30	30.8130
3	.0160	.1016	.1872	.2728	.3584	.4440	.5296	.6152	.7008	.7864	.8720	.9576	40	41.0839
4	.0214	.1070	.1926	.2782	.3638	.4494	.5349	.6205	.7061	.7917	.8773	.9629	50	51.3549
5	.0267	.1123	.1979	.2835	.3691	.4547	.5403	.6259	.7115	.7971	.8827	.9683	60	61.6259
6	.0321	.1177	.2033	.2889	.3745	.4601	.5456	.6312	.7168	.8024	.8880	.9736	70	71.8969
7	.0374	.1230	.2086	.2942	.3798	.4654	.5510	.6366	.7222	.8078	.8934	.9790	80	82.1679
8	.0428	.1284	.2140	.2996	.3852	.4708	.5563	.6419	.7275	.8131	.8987	.9843	90	92.4389
9	.0481	.1337	.2193	.3049	.3905	.4761	.5617	.6473	.7329	.8185	.9041	.9897	100	102.7099
10	.0535	.1391	.2247	.3103	.3959	.4815	.5670	.6526	.7382	.8238	.9094	.9950		
11	.0588	.1444	.2300	.3156	.4012	.4868	.5724	.6580	.7436	.8292	.9148	1.0004		
12	.0642	.1498	.2354	.3210	.4066	.4922	.5777	.6633	.7489	.8345	.9201	1.0057		
13	.0695	.1551	.2407	.3263	.4119	.4975	.5831	.6687	.7543	.8399	.9255	1.0111		
14	.0749	.1605	.2461	.3317	.4173	.5029	.5884	.6740	.7596	.8452	.9308	1.0164		
15	.0802	.1658	.2514	.3370	.4226	.5082	.5938	.6794	.7650	.8506	.9362	1.0217		

Equivalent Angle 13° 28' 23"						Altitude					Batter 2 $\frac{7}{8}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0200	.0399	.0599	.0799	.0998	.1198	.1398	.1597	.1797	.1997	.2196	10	2.3958
1	.0012	.0212	.0412	.0611	.0811	.1011	.1210	.1410	.1610	.1809	.2009	.2209	20	4.7917
2	.0025	.0225	.0424	.0624	.0824	.1023	.1223	.1423	.1622	.1822	.2021	.2221	30	7.1875
3	.0037	.0237	.0437	.0636	.0836	.1036	.1235	.1435	.1635	.1834	.2034	.2234	40	9.5833
4	.0050	.0250	.0449	.0649	.0849	.1048	.1248	.1447	.1647	.1847	.2046	.2246	50	11.9792
5	.0062	.0262	.0462	.0661	.0861	.1061	.1260	.1460	.1660	.1859	.2059	.2259	60	14.3750
6	.0075	.0275	.0474	.0674	.0873	.1073	.1273	.1472	.1672	.1872	.2071	.2271	70	16.7708
7	.0087	.0287	.0487	.0686	.0886	.1086	.1285	.1485	.1685	.1884	.2084	.2284	80	19.1667
8	.0100	.0299	.0499	.0699	.0898	.1098	.1298	.1497	.1697	.1897	.2096	.2296	90	21.5625
9	.0112	.0312	.0512	.0711	.0911	.1111	.1310	.1510	.1710	.1909	.2109	.2308	100	23.9583
10	.0125	.0324	.0524	.0724	.0923	.1123	.1323	.1522	.1722	.1922	.2121	.2321		
11	.0137	.0337	.0537	.0736	.0936	.1136	.1335	.1535	.1734	.1934	.2134	.2333		
12	.0150	.0349	.0549	.0749	.0948	.1148	.1348	.1547	.1747	.1947	.2146	.2346		
13	.0162	.0362	.0562	.0761	.0961	.1160	.1360	.1560	.1759	.1959	.2159	.2358		
14	.0175	.0374	.0574	.0774	.0973	.1173	.1373	.1572	.1772	.1972	.2171	.2371		
15	.0187	.0387	.0586	.0786	.0986	.1185	.1385	.1585	.1784	.1984	.2184	.2383		

Hypotenuse

0	.0000	.0857	.1714	.2571	.3428	.4285	.5141	.5998	.6855	.7712	.8569	.9426	10	10.2830
1	.0054	.0910	.1767	.2624	.3481	.4338	.5195	.6052	.6909	.7766	.8623	.9480	20	20.5660
2	.0107	.0964	.1821	.2678	.3535	.4392	.5249	.6106	.6962	.7819	.8676	.9533	30	30.8490
3	.0161	.1018	.1875	.2731	.3588	.4445	.5302	.6159	.7016	.7873	.8730	.9587	40	41.1320
4	.0214	.1071	.1928	.2785	.3642	.4499	.5356	.6213	.7070	.7926	.8783	.9640	50	51.4150
5	.0268	.1125	.1982	.2839	.3695	.4552	.5409	.6266	.7123	.7980	.8837	.9694	60	61.6980
6	.0321	.1178	.2035	.2892	.3749	.4606	.5463	.6320	.7177	.8034	.8891	.9747	70	71.9810
7	.0375	.1232	.2089	.2946	.3803	.4659	.5516	.6373	.7230	.8087	.8944	.9801	80	82.2640
8	.0428	.1285	.2142	.2999	.3856	.4713	.5570	.6427	.7284	.8141	.8998	.9855	90	92.5470
9	.0482	.1339	.2196	.3053	.3910	.4767	.5624	.6480	.7337	.8194	.9051	.9908	100	102.8300
10	.0536	.1392	.2249	.3106	.3963	.4820	.5677	.6534	.7391	.8248	.9105	.9962		
11	.0589	.1446	.2303	.3160	.4017	.4874	.5731	.6588	.7444	.8301	.9158	1.0015		
12	.0643	.1500	.2357	.3213	.4070	.4927	.5784	.6641	.7498	.8355	.9212	1.0069		
13	.0696	.1553	.2410	.3267	.4124	.4981	.5838	.6695	.7552	.8408	.9265	1.0122		
14	.0750	.1607	.2464	.3321	.4177	.5034	.5891	.6748	.7605	.8462	.9319	1.0176		
15	.0803	.1660	.2517	.3374	.4231	.5088	.5945	.6802	.7659	.8516	.9373	1.0229		

Equivalent Angle 13° 45' 18"						Altitude					Batter 2 ¹⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0204	.0408	.0612	.0816	.1020	.1224	.1428	.1632	.1836	.2040	.2244	10	2.4479
1	.0013	.0217	.0421	.0625	.0829	.1033	.1237	.1441	.1645	.1849	.2053	.2257	20	4.8958
2	.0025	.0229	.0433	.0637	.0841	.1045	.1249	.1453	.1657	.1861	.2065	.2269	30	7.3438
3	.0038	.0242	.0446	.0650	.0854	.1058	.1262	.1466	.1670	.1874	.2078	.2282	40	9.7917
4	.0051	.0255	.0459	.0663	.0867	.1071	.1275	.1479	.1683	.1887	.2091	.2295	50	12.2396
5	.0064	.0268	.0472	.0676	.0880	.1084	.1288	.1492	.1696	.1900	.2104	.2308	60	14.6875
6	.0076	.0280	.0484	.0688	.0892	.1096	.1300	.1504	.1708	.1912	.2116	.2320	70	17.1354
7	.0089	.0293	.0497	.0701	.0905	.1109	.1313	.1517	.1721	.1925	.2129	.2333	80	19.5833
8	.0102	.0306	.0510	.0714	.0918	.1122	.1326	.1530	.1734	.1938	.2142	.2346	90	22.0313
9	.0115	.0319	.0523	.0727	.0931	.1135	.1339	.1543	.1747	.1951	.2155	.2359	100	24.4792
10	.0127	.0331	.0535	.0739	.0943	.1147	.1351	.1555	.1759	.1963	.2167	.2371		
11	.0140	.0344	.0548	.0752	.0956	.1160	.1364	.1568	.1772	.1976	.2180	.2384		
12	.0153	.0357	.0561	.0765	.0969	.1173	.1377	.1581	.1785	.1989	.2193	.2397		
13	.0166	.0370	.0574	.0778	.0982	.1186	.1390	.1594	.1798	.2002	.2206	.2410		
14	.0178	.0382	.0586	.0790	.0994	.1198	.1402	.1606	.1810	.2014	.2218	.2422		
15	.0191	.0395	.0599	.0803	.1007	.1211	.1415	.1619	.1823	.2027	.2231	.2435		

Hypotenuse

0	.0000	.0858	.1716	.2574	.3432	.4290	.5148	.6006	.6864	.7721	.8579	.9437	10	10.2953
1	.0054	.0912	.1769	.2627	.3485	.4343	.5201	.6059	.6917	.7775	.8633	.9491	20	20.5905
2	.0107	.0965	.1823	.2681	.3539	.4397	.5255	.6113	.6971	.7829	.8687	.9545	30	30.8858
3	.0161	.1019	.1877	.2735	.3593	.4451	.5308	.6166	.7024	.7882	.8740	.9598	40	41.1810
4	.0214	.1072	.1930	.2788	.3646	.4504	.5362	.6220	.7078	.7936	.8794	.9652	50	51.4763
5	.0268	.1126	.1984	.2842	.3700	.4558	.5416	.6274	.7132	.7990	.8847	.9705	60	61.7715
6	.0322	.1180	.2038	.2896	.3753	.4611	.5469	.6327	.7185	.8043	.8901	.9759	70	72.0668
7	.0375	.1233	.2091	.2949	.3807	.4665	.5523	.6381	.7239	.8097	.8955	.9813	80	82.3620
8	.0429	.1287	.2145	.3003	.3861	.4719	.5577	.6435	.7292	.8150	.9008	.9866	90	92.6573
9	.0483	.1341	.2198	.3056	.3914	.4772	.5630	.6488	.7346	.8204	.9062	.9920	100	102.9526
10	.0536	.1394	.2252	.3110	.3968	.4826	.5684	.6542	.7400	.8258	.9116	.9974		
11	.0590	.1448	.2306	.3164	.4022	.4880	.5737	.6595	.7453	.8311	.9169	1.0027		
12	.0643	.1501	.2359	.3217	.4075	.4933	.5791	.6649	.7507	.8365	.9223	1.0081		
13	.0697	.1555	.2413	.3271	.4129	.4987	.5845	.6703	.7561	.8419	.9276	1.0134		
14	.0751	.1609	.2467	.3325	.4182	.5040	.5898	.6756	.7614	.8472	.9330	1.0188		
15	.0804	.1662	.2520	.3378	.4236	.5094	.5952	.6810	.7668	.8526	.9384	1.0242		

Equivalent Angle 14° 02' 10"

Altitude

Batter 3 to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0208	.0417	.0625	.0833	.1042	.1250	.1458	.1667	.1875	.2083	.2292	10 2.5000
1	.0013	.0221	.0430	.0638	.0846	.1055	.1263	.1471	.1680	.1888	.2096	.2305	20 5.0000
2	.0026	.0234	.0443	.0651	.0859	.1068	.1276	.1484	.1693	.1901	.2109	.2318	30 7.5000
3	.0039	.0247	.0456	.0664	.0872	.1081	.1289	.1497	.1706	.1914	.2122	.2331	40 10.0000
4	.0052	.0260	.0469	.0677	.0885	.1094	.1302	.1510	.1719	.1927	.2135	.2344	50 12.5000
5	.0065	.0273	.0482	.0690	.0898	.1107	.1315	.1523	.1732	.1940	.2148	.2357	60 15.0000
6	.0078	.0286	.0495	.0703	.0911	.1120	.1328	.1536	.1745	.1953	.2161	.2370	70 17.5000
7	.0091	.0299	.0508	.0716	.0924	.1133	.1341	.1549	.1758	.1966	.2174	.2383	80 20.0000
8	.0104	.0313	.0521	.0729	.0938	.1146	.1354	.1563	.1771	.1979	.2188	.2396	90 22.5000
9	.0117	.0326	.0534	.0742	.0951	.1159	.1367	.1576	.1784	.1992	.2201	.2409	100 25.0000
10	.0130	.0339	.0547	.0755	.0964	.1172	.1380	.1589	.1797	.2005	.2214	.2422	
11	.0143	.0352	.0560	.0768	.0977	.1185	.1393	.1602	.1810	.2018	.2227	.2435	
12	.0156	.0365	.0573	.0781	.0990	.1198	.1406	.1615	.1823	.2031	.2240	.2448	
13	.0169	.0378	.0586	.0794	.1003	.1211	.1419	.1628	.1836	.2044	.2253	.2461	
14	.0182	.0391	.0599	.0807	.1016	.1224	.1432	.1641	.1849	.2057	.2266	.2474	
15	.0195	.0404	.0612	.0820	.1029	.1237	.1445	.1654	.1862	.2070	.2279	.2487	

Hypothénuse

0	.0000	.0859	.1718	.2577	.3436	.4295	.5154	.6013	.6872	.7731	.8590	.9449	10 10.3078
1	.0054	.0913	.1772	.2631	.3490	.4349	.5208	.6067	.6926	.7785	.8643	.9502	20 20.6155
2	.0107	.0966	.1825	.2684	.3543	.4402	.5261	.6120	.6979	.7838	.8697	.9556	30 30.9233
3	.0161	.1020	.1879	.2738	.3597	.4456	.5315	.6174	.7033	.7892	.8751	.9610	40 41.2311
4	.0215	.1074	.1933	.2792	.3651	.4510	.5369	.6228	.7087	.7946	.8805	.9664	50 51.5388
5	.0268	.1127	.1986	.2845	.3704	.4563	.5422	.6281	.7140	.7999	.8858	.9717	60 61.8466
6	.0322	.1181	.2040	.2899	.3758	.4617	.5476	.6335	.7194	.8053	.8912	.9771	70 72.1543
7	.0376	.1235	.2094	.2953	.3812	.4671	.5530	.6389	.7248	.8107	.8966	.9825	80 82.4621
8	.0429	.1288	.2147	.3006	.3865	.4724	.5583	.6442	.7301	.8160	.9019	.9878	90 92.7699
9	.0483	.1342	.2201	.3060	.3919	.4778	.5637	.6496	.7355	.8214	.9073	.9932	100 103.0776
10	.0537	.1396	.2255	.3114	.3973	.4832	.5691	.6550	.7409	.8268	.9127	.9986	
11	.0591	.1450	.2309	.3167	.4026	.4885	.5744	.6603	.7462	.8321	.9180	1.0039	
12	.0644	.1503	.2362	.3221	.4080	.4939	.5798	.6657	.7516	.8375	.9234	1.0093	
13	.0698	.1557	.2416	.3275	.4134	.4993	.5852	.6711	.7570	.8429	.9288	1.0147	
14	.0752	.1611	.2470	.3329	.4188	.5047	.5905	.6764	.7623	.8482	.9341	1.0200	
15	.0805	.1664	.2523	.3382	.4241	.5100	.5959	.6818	.7677	.8536	.9395	1.0254	

Equivalent Angle 14° 19' 00"						Altitude						Batter 3 ¹ / ₁₆ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0213	.0425	.0638	.0851	.1063	.1276	.1489	.1701	.1914	.2127	.2339	10	2.5521
1	.0013	.0226	.0439	.0651	.0864	.1077	.1289	.1502	.1715	.1927	.2140	.2353	20	5.1042
2	.0027	.0239	.0452	.0665	.0877	.1090	.1303	.1515	.1728	.1941	.2153	.2366	30	7.6563
3	.0040	.0253	.0465	.0678	.0891	.1103	.1316	.1529	.1741	.1954	.2167	.2379	40	10.2083
4	.0053	.0266	.0479	.0691	.0904	.1117	.1329	.1542	.1755	.1967	.2180	.2393	50	12.7604
5	.0066	.0279	.0492	.0704	.0917	.1130	.1343	.1555	.1768	.1981	.2193	.2406	60	15.3125
6	.0080	.0292	.0505	.0718	.0930	.1143	.1356	.1568	.1781	.1994	.2206	.2419	70	17.8646
7	.0093	.0306	.0518	.0731	.0944	.1156	.1369	.1582	.1794	.2007	.2220	.2432	80	20.4167
8	.0106	.0319	.0532	.0744	.0957	.1170	.1382	.1595	.1808	.2020	.2233	.2446	90	22.9688
9	.0120	.0332	.0545	.0758	.0970	.1183	.1396	.1608	.1821	.2034	.2246	.2459	100	25.5208
10	.0133	.0346	.0558	.0771	.0984	.1196	.1409	.1622	.1834	.2047	.2260	.2472		
11	.0146	.0359	.0572	.0784	.0997	.1210	.1422	.1635	.1848	.2060	.2273	.2486		
12	.0160	.0372	.0585	.0798	.1010	.1223	.1436	.1648	.1861	.2074	.2286	.2499		
13	.0173	.0385	.0598	.0811	.1023	.1236	.1449	.1662	.1874	.2087	.2300	.2512		
14	.0186	.0399	.0611	.0824	.1037	.1249	.1462	.1675	.1887	.2100	.2313	.2525		
15	.0199	.0412	.0625	.0837	.1050	.1263	.1475	.1688	.1901	.2113	.2326	.2539		

Hypothenuse														
0	.0000	.0860	.1720	.2580	.3440	.4300	.5160	.6020	.6880	.7740	.8600	.9460	10	10.3205
1	.0054	.0914	.1774	.2634	.3494	.4354	.5214	.6074	.6934	.7794	.8654	.9514	20	20.6410
2	.0108	.0968	.1828	.2688	.3548	.4408	.5268	.6128	.6988	.7848	.8708	.9568	30	30.9616
3	.0161	.1021	.1881	.2741	.3601	.4461	.5322	.6182	.7042	.7902	.8762	.9622	40	41.2821
4	.0215	.1075	.1935	.2795	.3655	.4515	.5375	.6235	.7095	.7955	.8815	.9675	50	51.6026
5	.0269	.1129	.1989	.2849	.3709	.4569	.5429	.6289	.7149	.8009	.8869	.9729	60	61.9231
6	.0323	.1183	.2043	.2903	.3763	.4623	.5483	.6343	.7203	.8063	.8923	.9783	70	72.2436
7	.0376	.1236	.2096	.2956	.3816	.4676	.5537	.6397	.7257	.8117	.8977	.9837	80	82.5642
8	.0430	.1290	.2150	.3010	.3870	.4730	.5590	.6450	.7310	.8170	.9030	.9890	90	92.8847
9	.0484	.1344	.2204	.3064	.3924	.4784	.5644	.6504	.7364	.8224	.9084	.9944	100	103.2052
10	.0538	.1398	.2258	.3118	.3978	.4838	.5698	.6558	.7418	.8278	.9138	.9998		
11	.0591	.1451	.2311	.3171	.4031	.4891	.5752	.6612	.7472	.8332	.9192	1.0052		
12	.0645	.1505	.2365	.3225	.4085	.4945	.5805	.6665	.7525	.8385	.9245	1.0106		
13	.0699	.1559	.2419	.3279	.4139	.4999	.5859	.6719	.7579	.8439	.9299	1.0159		
14	.0753	.1613	.2473	.3333	.4193	.5053	.5913	.6773	.7633	.8493	.9353	1.0213		
15	.0806	.1666	.2526	.3386	.4246	.5107	.5967	.6827	.7687	.8547	.9407	1.0267		

Equivalent Angle 14° 35' 47"

Altitude

Batter 3 $\frac{1}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0217	.0434	.0651	.0868	.1085	.1302	.1519	.1736	.1953	.2170	.2387	10	2.6042
1	.0014	.0231	.0448	.0665	.0882	.1099	.1316	.1533	.1750	.1967	.2184	.2401	20	5.2083
2	.0027	.0244	.0461	.0678	.0895	.1112	.1329	.1546	.1763	.1980	.2197	.2414	30	7.8125
3	.0041	.0258	.0475	.0692	.0909	.1126	.1343	.1560	.1777	.1994	.2211	.2428	40	10.4167
4	.0054	.0271	.0488	.0705	.0922	.1139	.1356	.1573	.1790	.2007	.2224	.2441	50	13.0208
5	.0068	.0285	.0502	.0719	.0936	.1153	.1370	.1587	.1804	.2021	.2238	.2455	60	15.6250
6	.0081	.0298	.0515	.0732	.0949	.1166	.1383	.1600	.1817	.2035	.2252	.2469	70	18.2292
7	.0095	.0312	.0529	.0746	.0963	.1180	.1397	.1614	.1831	.2048	.2265	.2482	80	20.8333
8	.0109	.0326	.0543	.0760	.0977	.1194	.1411	.1628	.1845	.2062	.2279	.2496	90	23.4375
9	.0122	.0339	.0556	.0773	.0990	.1207	.1424	.1641	.1858	.2075	.2292	.2509	100	26.0417
10	.0136	.0353	.0570	.0787	.1004	.1221	.1438	.1655	.1872	.2089	.2306	.2523		
11	.0149	.0366	.0583	.0800	.1017	.1234	.1451	.1668	.1885	.2102	.2319	.2536		
12	.0163	.0380	.0597	.0814	.1031	.1248	.1465	.1682	.1899	.2116	.2333	.2550		
13	.0176	.0393	.0610	.0827	.1044	.1261	.1478	.1695	.1912	.2129	.2346	.2563		
14	.0190	.0407	.0624	.0841	.1058	.1275	.1492	.1709	.1926	.2143	.2360	.2577		
15	.0203	.0420	.0637	.0854	.1072	.1289	.1506	.1723	.1940	.2157	.2374	.2591		

Hypotenuse

0	.0000	.0861	.1722	.2583	.3445	.4306	.5167	.6028	.6889	.7750	.8611	.9472	10	10.3335
1	.0054	.0915	.1776	.2637	.3498	.4359	.5221	.6082	.6943	.7804	.8665	.9526	20	20.6670
2	.0108	.0969	.1830	.2691	.3552	.4413	.5274	.6136	.6997	.7858	.8719	.9580	30	31.0006
3	.0161	.1023	.1884	.2745	.3606	.4467	.5328	.6189	.7050	.7912	.8773	.9634	40	41.3341
4	.0215	.1076	.1938	.2799	.3660	.4521	.5382	.6243	.7104	.7965	.8827	.9688	50	51.6676
5	.0269	.1130	.1991	.2852	.3714	.4575	.5436	.6297	.7158	.8019	.8880	.9741	60	62.0011
6	.0323	.1184	.2045	.2906	.3767	.4629	.5490	.6351	.7212	.8073	.8934	.9795	70	72.3347
7	.0377	.1238	.2099	.2960	.3821	.4682	.5544	.6405	.7266	.8127	.8988	.9849	80	82.6682
8	.0431	.1292	.2153	.3014	.3875	.4736	.5597	.6458	.7320	.8181	.9042	.9903	90	93.0017
9	.0484	.1346	.2207	.3068	.3929	.4790	.5651	.6512	.7373	.8235	.9096	.9957	100	103.3352
10	.0538	.1399	.2260	.3122	.3983	.4844	.5705	.6566	.7427	.8288	.9149	1.0011		
11	.0592	.1453	.2314	.3175	.4037	.4898	.5759	.6620	.7481	.8342	.9203	1.0064		
12	.0646	.1507	.2368	.3229	.4090	.4951	.5813	.6674	.7535	.8396	.9257	1.0118		
13	.0700	.1561	.2422	.3283	.4144	.5005	.5866	.6728	.7589	.8450	.9311	1.0172		
14	.0753	.1615	.2476	.3337	.4198	.5059	.5920	.6781	.7643	.8504	.9365	1.0226		
15	.0807	.1668	.2530	.3391	.4252	.5113	.5974	.6835	.7696	.8557	.9419	1.0280		

Equivalent Angle 14° 52' 32"						Altitude					Batter 3 ³ / ₁₆ to 12			
-1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0221	.0443	.0664	.0885	.1107	.1328	.1549	.1771	.1992	.2214	.2435	10	2.6563
1	.0014	.0235	.0457	.0678	.0899	.1121	.1342	.1563	.1785	.2006	.2227	.2449	20	5.3125
2	.0028	.0249	.0470	.0692	.0913	.1134	.1356	.1577	.1799	.2020	.2241	.2463	30	7.9688
3	.0042	.0263	.0484	.0706	.0927	.1148	.1370	.1591	.1812	.2034	.2255	.2476	40	10.6250
4	.0055	.0277	.0498	.0719	.0941	.1162	.1383	.1605	.1826	.2048	.2269	.2490	50	13.2813
5	.0069	.0291	.0512	.0733	.0955	.1176	.1397	.1619	.1840	.2061	.2283	.2504	60	15.9375
6	.0083	.0304	.0526	.0747	.0968	.1190	.1411	.1632	.1854	.2075	.2297	.2518	70	18.5938
7	.0097	.0318	.0540	.0761	.0982	.1204	.1425	.1646	.1868	.2089	.2310	.2532	80	21.2500
8	.0111	.0332	.0553	.0775	.0996	.1217	.1439	.1660	.1882	.2103	.2324	.2546	90	23.9063
9	.0125	.0346	.0567	.0789	.1010	.1231	.1453	.1674	.1895	.2117	.2338	.2559	100	26.5625
10	.0138	.0360	.0581	.0802	.1024	.1245	.1466	.1688	.1909	.2131	.2352	.2573		
11	.0152	.0374	.0595	.0816	.1038	.1259	.1480	.1702	.1923	.2144	.2366	.2587		
12	.0166	.0387	.0609	.0830	.1051	.1273	.1494	.1715	.1937	.2158	.2380	.2601		
13	.0180	.0401	.0623	.0844	.1065	.1287	.1508	.1729	.1951	.2172	.2393	.2615		
14	.0194	.0415	.0636	.0858	.1079	.1300	.1522	.1743	.1965	.2186	.2407	.2629		
15	.0208	.0429	.0650	.0872	.1093	.1314	.1536	.1757	.1978	.2200	.2421	.2642		
Hypotenuse														
0	.0000	.0862	.1724	.2587	.3449	.4311	.5173	.6036	.6898	.7760	.8622	.9485	10	10.3468
1	.0054	.0916	.1778	.2641	.3503	.4365	.5227	.6090	.6952	.7814	.8676	.9538	20	20.6935
2	.0108	.0970	.1832	.2694	.3557	.4419	.5281	.6143	.7006	.7868	.8730	.9592	30	31.0403
3	.0162	.1024	.1886	.2748	.3611	.4473	.5335	.6197	.7060	.7922	.8784	.9646	40	41.3871
4	.0216	.1078	.1940	.2802	.3664	.4527	.5389	.6251	.7113	.7976	.8838	.9700	50	51.7339
5	.0269	.1132	.1994	.2856	.3718	.4581	.5443	.6305	.7167	.8030	.8892	.9754	60	62.0806
6	.0323	.1186	.2048	.2910	.3772	.4634	.5497	.6359	.7221	.8083	.8946	.9808	70	72.4274
7	.0377	.1239	.2102	.2964	.3826	.4688	.5551	.6413	.7275	.8137	.9000	.9862	80	82.7742
8	.0431	.1293	.2156	.3018	.3880	.4742	.5605	.6467	.7329	.8191	.9053	.9916	90	93.1209
9	.0485	.1347	.2209	.3072	.3934	.4796	.5658	.6521	.7383	.8245	.9107	.9970	100	103.4677
10	.0539	.1401	.2263	.3126	.3988	.4850	.5712	.6575	.7437	.8299	.9161	1.0023		
11	.0593	.1455	.2317	.3179	.4042	.4904	.5766	.6628	.7491	.8353	.9215	1.0077		
12	.0647	.1509	.2371	.3233	.4096	.4958	.5820	.6682	.7545	.8407	.9269	1.0131		
13	.0701	.1563	.2425	.3287	.4149	.5012	.5874	.6736	.7598	.8461	.9323	1.0185		
14	.0754	.1617	.2479	.3341	.4203	.5066	.5928	.6790	.7652	.8515	.9377	1.0239		
15	.0808	.1671	.2533	.3395	.4257	.5119	.5982	.6844	.7706	.8568	.9431	1.0293		

Equivalent Angle 15° 09' 14"						Altitude					Batter 3 $\frac{1}{4}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0226	.0451	.0677	.0903	.1128	.1354	.1580	.1806	.2031	.2257	.2483	10	2.7083
1	.0014	.0240	.0465	.0691	.0917	.1143	.1368	.1594	.1820	.2045	.2271	.2497	20	5.4167
2	.0028	.0254	.0480	.0705	.0931	.1157	.1382	.1608	.1834	.2059	.2285	.2511	30	8.1250
3	.0042	.0268	.0494	.0719	.0945	.1171	.1396	.1622	.1848	.2074	.2299	.2525	40	10.8333
4	.0056	.0282	.0508	.0734	.0959	.1185	.1411	.1636	.1862	.2088	.2313	.2539	50	13.5417
5	.0071	.0296	.0522	.0748	.0973	.1199	.1425	.1650	.1876	.2102	.2327	.2553	60	16.2500
6	.0085	.0310	.0536	.0762	.0987	.1213	.1439	.1664	.1890	.2116	.2342	.2567	70	18.9583
7	.0099	.0324	.0550	.0776	.1002	.1227	.1453	.1679	.1904	.2130	.2356	.2581	80	21.6667
8	.0113	.0339	.0564	.0790	.1016	.1241	.1467	.1693	.1918	.2144	.2370	.2595	90	24.3750
9	.0127	.0353	.0578	.0804	.1030	.1255	.1481	.1707	.1933	.2158	.2384	.2610	100	27.0833
10	.0141	.0367	.0592	.0818	.1044	.1270	.1495	.1721	.1947	.2172	.2398	.2624		
11	.0155	.0381	.0607	.0832	.1058	.1284	.1509	.1735	.1961	.2186	.2412	.2638		
12	.0169	.0395	.0621	.0846	.1072	.1298	.1523	.1749	.1975	.2201	.2426	.2652		
13	.0183	.0409	.0635	.0860	.1086	.1312	.1538	.1763	.1989	.2215	.2440	.2666		
14	.0197	.0423	.0649	.0875	.1100	.1326	.1552	.1777	.2003	.2229	.2454	.2680		
15	.0212	.0437	.0663	.0889	.1114	.1340	.1566	.1791	.2017	.2243	.2469	.2694		

Hypotenuse

0	.0000	.0863	.1727	.2590	.3453	.4317	.5180	.6043	.6907	.7770	.8634	.9497	10	10.3603
1	.0054	.0917	.1781	.2644	.3507	.4371	.5234	.6097	.6961	.7824	.8688	.9551	20	20.7205
2	.0108	.0971	.1835	.2698	.3561	.4425	.5288	.6151	.7015	.7878	.8741	.9605	30	31.0808
3	.0162	.1025	.1889	.2752	.3615	.4479	.5342	.6205	.7069	.7932	.8795	.9659	40	41.4411
4	.0216	.1079	.1943	.2806	.3669	.4533	.5396	.6259	.7123	.7986	.8849	.9713	50	51.8013
5	.0270	.1133	.1997	.2860	.3723	.4587	.5450	.6313	.7177	.8040	.8903	.9767	60	62.1616
6	.0324	.1187	.2050	.2914	.3777	.4641	.5504	.6367	.7231	.8094	.8957	.9821	70	72.5218
7	.0378	.1241	.2104	.2968	.3831	.4694	.5558	.6421	.7285	.8148	.9011	.9875	80	82.8821
8	.0432	.1295	.2158	.3022	.3885	.4748	.5612	.6475	.7339	.8202	.9065	.9929	90	93.2424
9	.0486	.1349	.2212	.3076	.3939	.4802	.5666	.6529	.7392	.8256	.9119	.9983	100	103.6026
10	.0540	.1403	.2266	.3130	.3993	.4856	.5720	.6583	.7446	.8310	.9173	1.0037		
11	.0594	.1457	.2320	.3184	.4047	.4910	.5774	.6637	.7500	.8364	.9227	1.0090		
12	.0648	.1511	.2374	.3238	.4101	.4964	.5828	.6691	.7554	.8418	.9281	1.0144		
13	.0701	.1565	.2428	.3292	.4155	.5018	.5882	.6745	.7608	.8472	.9335	1.0198		
14	.0755	.1619	.2482	.3346	.4209	.5072	.5936	.6799	.7662	.8526	.9389	1.0252		
15	.0809	.1673	.2536	.3399	.4263	.5126	.5990	.6853	.7716	.8580	.9443	1.0306		

Equivalent Angle 15° 25' 54"						Altitude					Batter 3 ⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0230	.0460	.0690	.0920	.1150	.1380	.1610	.1840	.2070	.2300	.2530	10	2.7604
1	.0014	.0244	.0474	.0704	.0935	.1165	.1395	.1625	.1855	.2085	.2315	.2545	20	5.5208
2	.0029	.0259	.0489	.0719	.0949	.1179	.1409	.1639	.1869	.2099	.2329	.2559	30	8.2813
3	.0043	.0273	.0503	.0733	.0963	.1193	.1423	.1653	.1883	.2113	.2343	.2574	40	11.0417
4	.0058	.0288	.0518	.0748	.0978	.1208	.1438	.1668	.1898	.2128	.2358	.2588	50	13.8021
5	.0072	.0302	.0532	.0762	.0992	.1222	.1452	.1682	.1912	.2142	.2372	.2602	60	16.5625
6	.0086	.0316	.0546	.0776	.1006	.1236	.1466	.1697	.1927	.2157	.2387	.2617	70	19.3229
7	.0101	.0331	.0561	.0791	.1021	.1251	.1481	.1711	.1941	.2171	.2401	.2631	80	22.0833
8	.0115	.0345	.0575	.0805	.1035	.1265	.1495	.1725	.1955	.2185	.2415	.2645	90	24.8438
9	.0129	.0359	.0589	.0819	.1050	.1280	.1510	.1740	.1970	.2200	.2430	.2660	100	27.6042
10	.0144	.0374	.0604	.0834	.1064	.1294	.1524	.1754	.1984	.2214	.2444	.2674		
11	.0158	.0388	.0618	.0848	.1078	.1308	.1538	.1768	.1998	.2228	.2458	.2689		
12	.0173	.0403	.0633	.0863	.1093	.1323	.1553	.1783	.2013	.2243	.2473	.2703		
13	.0187	.0417	.0647	.0877	.1107	.1337	.1567	.1797	.2027	.2257	.2487	.2717		
14	.0201	.0431	.0661	.0891	.1121	.1351	.1581	.1812	.2042	.2272	.2502	.2732		
15	.0216	.0446	.0676	.0906	.1136	.1366	.1596	.1826	.2056	.2286	.2516	.2746		

Hypotenuse														
0	.0000	.0865	.1729	.2594	.3458	.4323	.5187	.6052	.6916	.7781	.8645	.9510	10	10.3740
1	.0054	.0919	.1783	.2648	.3512	.4377	.5241	.6106	.6970	.7835	.8699	.9564	20	20.7480
2	.0108	.0973	.1837	.2702	.3566	.4431	.5295	.6160	.7024	.7889	.8753	.9618	30	31.1220
3	.0162	.1027	.1891	.2756	.3620	.4485	.5349	.6214	.7078	.7943	.8807	.9672	40	41.4960
4	.0216	.1081	.1945	.2810	.3674	.4539	.5403	.6268	.7132	.7997	.8861	.9726	50	51.8700
5	.0270	.1135	.1999	.2864	.3728	.4593	.5457	.6322	.7186	.8051	.8915	.9780	60	62.2440
6	.0324	.1189	.2053	.2918	.3782	.4647	.5511	.6376	.7240	.8105	.8969	.9834	70	72.6180
7	.0378	.1243	.2107	.2972	.3836	.4701	.5565	.6430	.7294	.8159	.9023	.9888	80	82.9920
8	.0432	.1297	.2161	.3026	.3890	.4755	.5619	.6484	.7348	.8213	.9077	.9942	90	93.3660
9	.0486	.1351	.2215	.3080	.3944	.4809	.5673	.6538	.7402	.8267	.9131	.9996	100	103.7400
10	.0540	.1405	.2269	.3134	.3998	.4863	.5727	.6592	.7456	.8321	.9185	1.0050		
11	.0594	.1459	.2323	.3188	.4052	.4917	.5781	.6646	.7510	.8375	.9239	1.0104		
12	.0648	.1513	.2377	.3242	.4106	.4971	.5835	.6700	.7564	.8429	.9293	1.0158		
13	.0702	.1567	.2431	.3296	.4160	.5025	.5889	.6754	.7618	.8483	.9347	1.0212		
14	.0756	.1621	.2485	.3350	.4214	.5079	.5943	.6808	.7672	.8537	.9401	1.0266		
15	.0810	.1675	.2539	.3404	.4268	.5133	.5997	.6862	.7726	.8591	.9455	1.0320		

Equivalent Angle 15° 42' 31"

Altitude

Batter $3\frac{3}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0234	.0469	.0703	.0938	.1172	.1406	.1641	.1875	.2109	.2344	.2578	10	2.8125
1	.0015	.0249	.0483	.0718	.0952	.1187	.1421	.1655	.1890	.2124	.2358	.2593	20	5.6250
2	.0029	.0264	.0498	.0732	.0967	.1201	.1436	.1670	.1904	.2139	.2373	.2607	30	8.4375
3	.0044	.0278	.0513	.0747	.0981	.1216	.1450	.1685	.1919	.2153	.2388	.2622	40	11.2500
4	.0059	.0293	.0527	.0762	.0996	.1230	.1465	.1699	.1934	.2168	.2402	.2637	50	14.0625
5	.0073	.0308	.0542	.0776	.1011	.1245	.1479	.1714	.1948	.2183	.2417	.2651	60	16.8750
6	.0088	.0322	.0557	.0791	.1025	.1260	.1494	.1729	.1963	.2197	.2432	.2666	70	19.6875
7	.0103	.0337	.0571	.0806	.1040	.1274	.1509	.1743	.1978	.2212	.2446	.2681	80	22.5000
8	.0117	.0352	.0586	.0820	.1055	.1289	.1523	.1758	.1992	.2227	.2461	.2695	90	25.3125
9	.0132	.0366	.0601	.0835	.1069	.1304	.1538	.1772	.2007	.2241	.2476	.2710	100	28.1250
10	.0146	.0381	.0615	.0850	.1084	.1318	.1553	.1787	.2021	.2256	.2490	.2725		
11	.0161	.0396	.0630	.0864	.1099	.1333	.1567	.1802	.2036	.2271	.2505	.2739		
12	.0176	.0410	.0645	.0879	.1113	.1348	.1582	.1816	.2051	.2285	.2520	.2754		
13	.0190	.0425	.0659	.0894	.1128	.1362	.1597	.1831	.2065	.2300	.2534	.2769		
14	.0205	.0439	.0674	.0908	.1143	.1377	.1611	.1846	.2080	.2314	.2549	.2783		
15	.0220	.0454	.0688	.0923	.1157	.1392	.1626	.1860	.2095	.2329	.2563	.2798		

Hypotenuse

0	.0000	.0866	.1731	.2597	.3463	.4328	.5194	.6060	.6925	.7791	.8657	.9522	10	10.3880
1	.0054	.0920	.1785	.2651	.3517	.4382	.5248	.6114	.6979	.7845	.8711	.9576	20	20.7760
2	.0108	.0974	.1840	.2705	.3571	.4437	.5302	.6168	.7034	.7899	.8765	.9631	30	31.1639
3	.0162	.1028	.1894	.2759	.3625	.4491	.5356	.6222	.7088	.7953	.8819	.9685	40	41.5519
4	.0216	.1082	.1948	.2813	.3679	.4545	.5410	.6276	.7142	.8007	.8873	.9739	50	51.9399
5	.0271	.1136	.2002	.2868	.3733	.4599	.5465	.6330	.7196	.8062	.8927	.9793	60	62.3279
6	.0325	.1190	.2056	.2922	.3787	.4653	.5519	.6384	.7250	.8116	.8981	.9847	70	72.7159
7	.0379	.1244	.2110	.2976	.3841	.4707	.5573	.6438	.7304	.8170	.9035	.9901	80	83.1039
8	.0433	.1298	.2164	.3030	.3896	.4761	.5627	.6492	.7358	.8224	.9089	.9955	90	93.4918
9	.0487	.1353	.2218	.3084	.3950	.4815	.5681	.6547	.7412	.8278	.9144	1.0009	100	103.8798
10	.0541	.1407	.2272	.3138	.4004	.4869	.5735	.6601	.7466	.8332	.9198	1.0063		
11	.0595	.1461	.2326	.3192	.4058	.4923	.5789	.6655	.7520	.8386	.9252	1.0117		
12	.0649	.1515	.2381	.3246	.4112	.4978	.5843	.6709	.7575	.8440	.9306	1.0172		
13	.0703	.1569	.2435	.3300	.4166	.5032	.5897	.6763	.7629	.8494	.9360	1.0226		
14	.0757	.1623	.2489	.3354	.4220	.5086	.5951	.6817	.7683	.8548	.9414	1.0280		
15	.0812	.1677	.2543	.3409	.4274	.5140	.6006	.6871	.7737	.8603	.9468	1.0334		

Equivalent Angle 15° 59' 05"						Altitude					Batter 3 ⁷ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0239	.0477	.0716	.0955	.1194	.1432	.1671	.1910	.2148	.2387	.2626	10	2.8646
1	.0015	.0254	.0492	.0731	.0970	.1208	.1447	.1686	.1925	.2163	.2402	.2641	20	5.7292
2	.0030	.0269	.0507	.0746	.0985	.1223	.1462	.1701	.1940	.2178	.2417	.2656	30	8.5938
3	.0045	.0283	.0522	.0761	.1000	.1238	.1477	.1716	.1954	.2193	.2432	.2671	40	11.4583
4	.0060	.0298	.0537	.0776	.1015	.1253	.1492	.1731	.1969	.2208	.2447	.2686	50	14.3229
5	.0075	.0313	.0552	.0791	.1029	.1268	.1507	.1746	.1984	.2223	.2462	.2700	60	17.1875
6	.0090	.0328	.0567	.0806	.1044	.1283	.1522	.1761	.1999	.2238	.2477	.2715	70	20.0521
7	.0104	.0343	.0582	.0821	.1059	.1298	.1537	.1775	.2014	.2253	.2492	.2730	80	22.9167
8	.0119	.0358	.0597	.0836	.1074	.1313	.1552	.1790	.2029	.2268	.2507	.2745	90	25.7813
9	.0134	.0373	.0612	.0850	.1089	.1328	.1567	.1805	.2044	.2283	.2521	.2760	100	28.6458
10	.0149	.0388	.0627	.0865	.1104	.1343	.1581	.1820	.2059	.2298	.2536	.2775		
11	.0164	.0403	.0642	.0880	.1119	.1358	.1596	.1835	.2074	.2313	.2551	.2790		
12	.0179	.0418	.0656	.0895	.1134	.1373	.1611	.1850	.2089	.2327	.2566	.2805		
13	.0194	.0433	.0671	.0910	.1149	.1388	.1626	.1865	.2104	.2342	.2581	.2820		
14	.0209	.0448	.0686	.0925	.1164	.1402	.1641	.1880	.2119	.2357	.2596	.2835		
15	.0224	.0463	.0701	.0940	.1179	.1417	.1656	.1895	.2134	.2372	.2611	.2850		

Hypotenuse														
0	.0000	.0867	.1734	.2601	.3467	.4334	.5201	.6068	.6935	.7802	.8669	.9535	10	10.4022
1	.0054	.0921	.1788	.2655	.3522	.4388	.5255	.6122	.6989	.7856	.8723	.9590	20	20.8044
2	.0108	.0975	.1842	.2709	.3576	.4443	.5309	.6176	.7043	.7910	.8777	.9644	30	31.2066
3	.0163	.1029	.1896	.2763	.3630	.4497	.5364	.6230	.7097	.7964	.8831	.9698	40	41.6088
4	.0217	.1084	.1950	.2817	.3684	.4551	.5418	.6285	.7152	.8018	.8885	.9752	50	52.0110
5	.0271	.1138	.2005	.2871	.3738	.4605	.5472	.6339	.7206	.8073	.8939	.9806	60	62.4132
6	.0325	.1192	.2059	.2926	.3792	.4659	.5526	.6393	.7260	.8127	.8994	.9860	70	72.8154
7	.0379	.1246	.2113	.2980	.3847	.4713	.5580	.6447	.7314	.8181	.9048	.9915	80	83.2176
8	.0433	.1300	.2167	.3034	.3901	.4768	.5635	.6501	.7368	.8235	.9102	.9969	90	93.6198
9	.0488	.1354	.2221	.3088	.3955	.4822	.5689	.6556	.7422	.8289	.9156	1.0023	100	104.0220
10	.0542	.1409	.2275	.3142	.4009	.4876	.5743	.6610	.7477	.8343	.9210	1.0077		
11	.0596	.1463	.2330	.3197	.4063	.4930	.5797	.6664	.7531	.8398	.9264	1.0131		
12	.0650	.1517	.2384	.3251	.4118	.4984	.5851	.6718	.7585	.8452	.9319	1.0185		
13	.0704	.1571	.2438	.3305	.4172	.5039	.5905	.6772	.7639	.8506	.9373	1.0240		
14	.0758	.1625	.2492	.3359	.4226	.5093	.5960	.6826	.7693	.8560	.9427	1.0294		
15	.0813	.1680	.2546	.3413	.4280	.5147	.6014	.6881	.7747	.8614	.9481	1.0348		

Equivalent Angle 16° 15' 37"						Altitude						Batter 3½ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0243	.0486	.0729	.0972	.1215	.1458	.1701	.1944	.2188	.2431	.2674	10	2.9167
1	.0015	.0258	.0501	.0744	.0987	.1230	.1474	.1717	.1960	.2203	.2446	.2689	20	5.8333
2	.0030	.0273	.0516	.0760	.1003	.1246	.1489	.1732	.1975	.2218	.2461	.2704	30	8.7500
3	.0046	.0289	.0532	.0775	.1018	.1261	.1504	.1747	.1990	.2233	.2476	.2719	40	11.6667
4	.0061	.0304	.0547	.0790	.1033	.1276	.1519	.1762	.2005	.2248	.2491	.2734	50	14.5833
5	.0076	.0319	.0562	.0805	.1048	.1291	.1534	.1777	.2020	.2263	.2507	.2750	60	17.5000
6	.0091	.0334	.0577	.0820	.1063	.1306	.1549	.1793	.2036	.2279	.2522	.2765	70	20.4167
7	.0106	.0349	.0592	.0836	.1079	.1322	.1565	.1808	.2051	.2294	.2537	.2780	80	23.3333
8	.0122	.0365	.0608	.0851	.1094	.1337	.1580	.1823	.2066	.2309	.2552	.2795	90	26.2500
9	.0137	.0380	.0623	.0866	.1109	.1352	.1595	.1838	.2081	.2324	.2567	.2810	100	29.1667
10	.0152	.0395	.0638	.0881	.1124	.1367	.1610	.1853	.2096	.2339	.2582	.2826		
11	.0167	.0410	.0653	.0896	.1139	.1382	.1625	.1868	.2112	.2355	.2598	.2841		
12	.0182	.0425	.0668	.0911	.1155	.1398	.1641	.1884	.2127	.2370	.2613	.2856		
13	.0197	.0441	.0684	.0927	.1170	.1413	.1656	.1899	.2142	.2385	.2628	.2871		
14	.0213	.0456	.0699	.0942	.1185	.1428	.1671	.1914	.2157	.2400	.2643	.2886		
15	.0228	.0471	.0714	.0957	.1200	.1443	.1686	.1929	.2172	.2415	.2658	.2901		

Hypothenuse

0	.0000	.0868	.1736	.2604	.3472	.4340	.5208	.6076	.6944	.7813	.8681	.9549	10	10.4167
1	.0054	.0922	.1790	.2658	.3526	.4395	.5263	.6131	.6999	.7867	.8735	.9603	20	20.8333
2	.0109	.0977	.1845	.2713	.3581	.4449	.5317	.6185	.7053	.7921	.8789	.9657	30	31.2500
3	.0163	.1031	.1899	.2767	.3635	.4503	.5371	.6239	.7107	.7975	.8843	.9711	40	41.6667
4	.0217	.1085	.1953	.2821	.3689	.4557	.5425	.6293	.7161	.8030	.8898	.9766	50	52.0833
5	.0271	.1139	.2007	.2875	.3743	.4612	.5480	.6348	.7216	.8084	.8952	.9820	60	62.5000
6	.0326	.1194	.2062	.2930	.3798	.4666	.5534	.6402	.7270	.8138	.9006	.9874	70	72.9167
7	.0380	.1248	.2116	.2984	.3852	.4720	.5588	.6456	.7324	.8192	.9060	.9928	80	83.3333
8	.0434	.1302	.2170	.3038	.3906	.4774	.5642	.6510	.7378	.8247	.9115	.9983	90	93.7500
9	.0488	.1356	.2224	.3092	.3961	.4829	.5697	.6565	.7433	.8301	.9169	1.0037	100	104.1667
10	.0543	.1411	.2279	.3147	.4015	.4883	.5751	.6619	.7487	.8355	.9223	1.0091		
11	.0597	.1465	.2333	.3201	.4069	.4937	.5805	.6673	.7541	.8409	.9277	1.0145		
12	.0651	.1519	.2387	.3255	.4123	.4991	.5859	.6727	.7595	.8464	.9332	1.0200		
13	.0705	.1573	.2441	.3309	.4178	.5046	.5914	.6782	.7650	.8518	.9386	1.0254		
14	.0760	.1628	.2496	.3364	.4232	.5100	.5968	.6836	.7704	.8572	.9440	1.0308		
15	.0814	.1682	.2550	.3418	.4286	.5154	.6022	.6890	.7758	.8626	.9494	1.0362		

Equivalent Angle 16° 32' 05"						Altitude					Batter 3 ⁹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0247	.0495	.0742	.0990	.1237	.1484	.1732	.1979	.2227	.2474	.2721	10	2.9688
1	.0015	.0263	.0510	.0758	.1005	.1252	.1500	.1747	.1995	.2242	.2489	.2737	20	5.9375
2	.0031	.0278	.0526	.0773	.1021	.1268	.1515	.1763	.2010	.2257	.2505	.2752	30	8.9063
3	.0046	.0294	.0541	.0789	.1036	.1283	.1531	.1778	.2026	.2273	.2520	.2768	40	11.8750
4	.0062	.0309	.0557	.0804	.1051	.1299	.1546	.1794	.2041	.2288	.2536	.2783	50	14.8438
5	.0077	.0325	.0572	.0819	.1067	.1314	.1562	.1809	.2056	.2304	.2551	.2799	60	17.8125
6	.0093	.0340	.0588	.0835	.1082	.1330	.1577	.1825	.2072	.2319	.2567	.2814	70	20.7813
7	.0108	.0356	.0603	.0850	.1098	.1345	.1593	.1840	.2087	.2335	.2582	.2830	80	23.7500
8	.0124	.0371	.0618	.0866	.1113	.1361	.1608	.1855	.2103	.2350	.2598	.2845	90	26.7188
9	.0139	.0387	.0634	.0881	.1129	.1376	.1624	.1871	.2118	.2366	.2613	.2861	100	29.6875
10	.0155	.0402	.0649	.0897	.1144	.1392	.1639	.1886	.2134	.2381	.2629	.2876		
11	.0170	.0417	.0665	.0912	.1160	.1407	.1654	.1902	.2149	.2397	.2644	.2891		
12	.0186	.0433	.0680	.0928	.1175	.1423	.1670	.1917	.2165	.2412	.2660	.2907		
13	.0201	.0448	.0696	.0943	.1191	.1438	.1685	.1933	.2180	.2428	.2675	.2922		
14	.0216	.0464	.0711	.0959	.1206	.1453	.1701	.1948	.2196	.2443	.2690	.2938		
15	.0232	.0479	.0727	.0974	.1222	.1469	.1716	.1964	.2211	.2458	.2706	.2953		

Hypotenuse

0	.0000	.0869	.1739	.2608	.3477	.4346	.5216	.6085	.6954	.7824	.8693	.9562	10	10.4314
1	.0054	.0924	.1793	.2662	.3531	.4401	.5270	.6139	.7009	.7878	.8747	.9616	20	20.8627
2	.0109	.0978	.1847	.2717	.3586	.4455	.5324	.6194	.7063	.7932	.8801	.9671	30	31.2941
3	.0163	.1032	.1902	.2771	.3640	.4509	.5379	.6248	.7117	.7987	.8856	.9725	40	41.7255
4	.0217	.1087	.1956	.2825	.3694	.4564	.5433	.6302	.7172	.8041	.8910	.9779	50	52.1568
5	.0272	.1141	.2010	.2879	.3749	.4618	.5487	.6357	.7226	.8095	.8964	.9834	60	62.5882
6	.0326	.1195	.2065	.2934	.3803	.4672	.5542	.6411	.7280	.8150	.9019	.9888	70	73.0196
7	.0380	.1250	.2119	.2988	.3857	.4727	.5596	.6465	.7335	.8204	.9073	.9942	80	83.4510
8	.0435	.1304	.2173	.3042	.3912	.4781	.5650	.6520	.7389	.8258	.9127	.9997	90	93.8823
9	.0489	.1358	.2228	.3097	.3966	.4835	.5705	.6574	.7443	.8312	.9182	1.0051	100	104.3137
10	.0543	.1413	.2282	.3151	.4020	.4890	.5759	.6628	.7498	.8367	.9236	1.0105		
11	.0598	.1467	.2336	.3205	.4075	.4944	.5813	.6683	.7552	.8421	.9290	1.0160		
12	.0652	.1521	.2391	.3260	.4129	.4998	.5868	.6737	.7606	.8475	.9345	1.0214		
13	.0706	.1576	.2445	.3314	.4183	.5053	.5922	.6791	.7661	.8530	.9399	1.0268		
14	.0761	.1630	.2499	.3368	.4238	.5107	.5976	.6846	.7715	.8584	.9453	1.0323		
15	.0815	.1684	.2554	.3423	.4292	.5161	.6031	.6900	.7769	.8638	.9508	1.0377		

Equivalent Angle 16° 48' 31"						Altitude						Batter 3 ⁵ / ₈ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0252	.0503	.0755	.1007	.1259	.1510	.1762	.2014	.2266	.2517	.2769	10	3.0208
1	.0016	.0267	.0519	.0771	.1023	.1274	.1526	.1778	.2030	.2281	.2533	.2785	20	6.0417
2	.0031	.0283	.0535	.0787	.1038	.1290	.1542	.1794	.2045	.2297	.2549	.2801	30	9.0625
3	.0047	.0299	.0551	.0802	.1054	.1306	.1558	.1809	.2061	.2313	.2565	.2816	40	12.0833
4	.0063	.0315	.0566	.0818	.1070	.1322	.1573	.1825	.2077	.2329	.2580	.2832	50	15.1042
5	.0079	.0330	.0582	.0834	.1086	.1337	.1589	.1841	.2093	.2344	.2596	.2848	60	18.1250
6	.0094	.0346	.0598	.0850	.1101	.1353	.1605	.1857	.2108	.2360	.2612	.2863	70	21.1458
7	.0110	.0362	.0614	.0865	.1117	.1369	.1621	.1872	.2124	.2376	.2627	.2879	80	24.1667
8	.0126	.0378	.0629	.0881	.1133	.1385	.1636	.1888	.2140	.2391	.2643	.2895	90	27.1875
9	.0142	.0393	.0645	.0897	.1149	.1400	.1652	.1904	.2155	.2407	.2659	.2911	100	30.2083
10	.0157	.0409	.0661	.0913	.1164	.1416	.1668	.1919	.2171	.2423	.2675	.2926		
11	.0173	.0425	.0677	.0928	.1180	.1432	.1683	.1935	.2187	.2439	.2690	.2942		
12	.0189	.0441	.0692	.0944	.1196	.1447	.1699	.1951	.2203	.2454	.2706	.2958		
13	.0205	.0456	.0708	.0960	.1211	.1463	.1715	.1967	.2218	.2470	.2722	.2974		
14	.0220	.0472	.0724	.0975	.1227	.1479	.1731	.1982	.2234	.2486	.2738	.2989		
15	.0236	.0488	.0739	.0991	.1243	.1495	.1746	.1998	.2250	.2502	.2753	.3005		

Hypotenuse

0	.0000	.0871	.1741	.2612	.3482	.4353	.5223	.6094	.6964	.7835	.8705	.9576	10	10.4463
1	.0054	.0925	.1795	.2666	.3537	.4407	.5278	.6148	.7019	.7889	.8760	.9630	20	20.8926
2	.0109	.0979	.1850	.2720	.3591	.4461	.5332	.6202	.7073	.7944	.8814	.9685	30	31.3389
3	.0163	.1034	.1904	.2775	.3645	.4516	.5386	.6257	.7127	.7998	.8868	.9739	40	41.7852
4	.0218	.1088	.1959	.2829	.3700	.4570	.5441	.6311	.7182	.8052	.8923	.9793	50	52.2316
5	.0272	.1143	.2013	.2884	.3754	.4625	.5495	.6366	.7236	.8107	.8977	.9848	60	62.6779
6	.0326	.1197	.2067	.2938	.3809	.4679	.5550	.6420	.7291	.8161	.9032	.9902	70	73.1242
7	.0381	.1251	.2122	.2992	.3863	.4733	.5604	.6475	.7345	.8216	.9086	.9957	80	83.5705
8	.0435	.1306	.2176	.3047	.3917	.4788	.5658	.6529	.7399	.8270	.9141	1.0011	90	94.0168
9	.0490	.1360	.2231	.3101	.3972	.4842	.5713	.6583	.7454	.8324	.9195	1.0065	100	104.4631
10	.0544	.1415	.2285	.3156	.4026	.4897	.5767	.6638	.7508	.8379	.9249	1.0120		
11	.0598	.1469	.2340	.3210	.4081	.4951	.5822	.6692	.7563	.8433	.9304	1.0174		
12	.0653	.1523	.2394	.3264	.4135	.5006	.5876	.6747	.7617	.8488	.9358	1.0229		
13	.0707	.1578	.2448	.3319	.4189	.5060	.5930	.6801	.7672	.8542	.9413	1.0283		
14	.0762	.1632	.2503	.3373	.4244	.5114	.5985	.6855	.7726	.8596	.9467	1.0337		
15	.0816	.1687	.2557	.3428	.4298	.5169	.6039	.6910	.7780	.8651	.9521	1.0392		

Equivalent Angle 17° 04' 54"						Altitude					Batter 3 ¹¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0256	.0512	.0768	.1024	.1280	.1536	.1793	.2049	.2305	.2561	.2817	10	3.0729
1	.0016	.0272	.0528	.0784	.1040	.1296	.1552	.1809	.2065	.2321	.2577	.2833	20	6.1458
2	.0032	.0288	.0544	.0800	.1056	.1312	.1568	.1825	.2081	.2337	.2593	.2849	30	9.2188
3	.0048	.0304	.0560	.0816	.1072	.1328	.1584	.1841	.2097	.2353	.2609	.2865	40	12.2917
4	.0064	.0320	.0576	.0832	.1088	.1344	.1600	.1857	.2113	.2369	.2625	.2881	50	15.3646
5	.0080	.0336	.0592	.0848	.1104	.1360	.1616	.1873	.2129	.2385	.2641	.2897	60	18.4375
6	.0096	.0352	.0608	.0864	.1120	.1376	.1632	.1889	.2145	.2401	.2657	.2913	70	21.5104
7	.0112	.0368	.0624	.0880	.1136	.1392	.1648	.1905	.2161	.2417	.2673	.2929	80	24.5833
8	.0128	.0384	.0640	.0896	.1152	.1408	.1664	.1921	.2177	.2433	.2689	.2945	90	27.6563
9	.0144	.0400	.0656	.0912	.1168	.1424	.1681	.1937	.2193	.2449	.2705	.2961	100	30.7292
10	.0160	.0416	.0672	.0928	.1184	.1440	.1697	.1953	.2209	.2465	.2721	.2977		
11	.0176	.0432	.0688	.0944	.1200	.1456	.1713	.1969	.2225	.2481	.2737	.2993		
12	.0192	.0448	.0704	.0960	.1216	.1472	.1729	.1985	.2241	.2497	.2753	.3009		
13	.0208	.0464	.0720	.0976	.1232	.1488	.1745	.2001	.2257	.2513	.2769	.3025		
14	.0224	.0480	.0736	.0992	.1248	.1504	.1761	.2017	.2273	.2529	.2785	.3041		
15	.0240	.0496	.0752	.1008	.1264	.1520	.1777	.2033	.2289	.2545	.2801	.3057		

Hypotenuse

0	.0000	.0872	.1744	.2615	.3487	.4359	.5231	.6103	.6974	.7846	.8718	.9590	10	10.4615
1	.0054	.0926	.1798	.2670	.3542	.4413	.5285	.6157	.7029	.7901	.8772	.9644	20	20.9230
2	.0109	.0981	.1853	.2724	.3596	.4468	.5340	.6212	.7083	.7955	.8827	.9699	30	31.3845
3	.0163	.1035	.1907	.2779	.3651	.4522	.5394	.6266	.7138	.8010	.8881	.9753	40	41.8460
4	.0218	.1090	.1962	.2833	.3705	.4577	.5449	.6320	.7192	.8064	.8936	.9808	50	52.3075
5	.0272	.1144	.2016	.2888	.3760	.4631	.5503	.6375	.7247	.8119	.8990	.9862	60	62.7690
6	.0327	.1199	.2071	.2942	.3814	.4686	.5558	.6429	.7301	.8173	.9045	.9917	70	73.2304
7	.0381	.1253	.2125	.2997	.3869	.4740	.5612	.6484	.7356	.8228	.9099	.9971	80	83.6919
8	.0436	.1308	.2179	.3051	.3923	.4795	.5667	.6538	.7410	.8282	.9154	1.0026	90	94.1534
9	.0490	.1362	.2234	.3106	.3978	.4849	.5721	.6593	.7465	.8337	.9208	1.0080	100	104.6149
10	.0545	.1417	.2288	.3160	.4032	.4904	.5776	.6647	.7519	.8391	.9263	1.0135		
11	.0599	.1471	.2343	.3215	.4087	.4958	.5830	.6702	.7574	.8445	.9317	1.0189		
12	.0654	.1526	.2397	.3269	.4141	.5013	.5885	.6756	.7628	.8500	.9372	1.0244		
13	.0708	.1580	.2452	.3324	.4195	.5067	.5939	.6811	.7683	.8554	.9426	1.0298		
14	.0763	.1635	.2506	.3378	.4250	.5122	.5994	.6865	.7737	.8609	.9481	1.0353		
15	.0817	.1689	.2561	.3433	.4304	.5176	.6048	.6920	.7792	.8663	.9535	1.0407		

Equivalent Angle 17° 21' 15"					Altitude					Batter 3 $\frac{3}{4}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0260	.0521	.0781	.1042	.1302	.1563	.1823	.2083	.2344	.2604	.2865	10	3.1250
1	.0016	.0277	.0537	.0798	.1058	.1318	.1579	.1839	.2100	.2360	.2620	.2881	20	6.2500
2	.0033	.0293	.0553	.0814	.1074	.1335	.1595	.1855	.2116	.2376	.2637	.2897	30	9.3750
3	.0049	.0309	.0570	.0830	.1090	.1351	.1611	.1872	.2132	.2393	.2653	.2913	40	12.5000
4	.0065	.0326	.0586	.0846	.1107	.1367	.1628	.1888	.2148	.2409	.2669	.2930	50	15.6250
5	.0081	.0342	.0602	.0863	.1123	.1383	.1644	.1904	.2165	.2425	.2686	.2946	60	18.7500
6	.0098	.0358	.0618	.0879	.1139	.1400	.1660	.1921	.2181	.2441	.2702	.2962	70	21.8750
7	.0114	.0374	.0635	.0895	.1156	.1416	.1676	.1937	.2197	.2458	.2718	.2979	80	25.0000
8	.0130	.0391	.0651	.0911	.1172	.1432	.1693	.1953	.2214	.2474	.2734	.2995	90	28.1250
9	.0146	.0407	.0667	.0928	.1188	.1449	.1709	.1969	.2230	.2490	.2751	.3011	100	31.2500
10	.0163	.0423	.0684	.0944	.1204	.1465	.1725	.1986	.2246	.2507	.2767	.3027		
11	.0179	.0439	.0700	.0960	.1221	.1481	.1742	.2002	.2262	.2523	.2783	.3044		
12	.0195	.0456	.0716	.0977	.1237	.1497	.1758	.2018	.2279	.2539	.2799	.3060		
13	.0212	.0472	.0732	.0993	.1253	.1514	.1774	.2035	.2295	.2555	.2816	.3076		
14	.0228	.0488	.0749	.1009	.1270	.1530	.1790	.2051	.2311	.2572	.2832	.3092		
15	.0244	.0505	.0765	.1025	.1286	.1546	.1807	.2067	.2327	.2588	.2848	.3109		

Hypotenuse

0	.0000	.0873	.1746	.2619	.3492	.4365	.5238	.6112	.6985	.7858	.8731	.9604	10	10.4769
1	.0055	.0928	.1801	.2674	.3547	.4420	.5293	.6166	.7039	.7912	.8785	.9658	20	20.9538
2	.0109	.0982	.1855	.2728	.3601	.4474	.5348	.6221	.7094	.7967	.8840	.9713	30	31.4307
3	.0164	.1037	.1910	.2783	.3656	.4529	.5402	.6275	.7148	.8021	.8894	.9768	40	41.9076
4	.0218	.1091	.1964	.2837	.3711	.4584	.5457	.6330	.7203	.8076	.8949	.9822	50	52.3845
5	.0273	.1146	.2019	.2892	.3765	.4638	.5511	.6384	.7257	.8131	.9004	.9877	60	62.8615
6	.0327	.1200	.2074	.2947	.3820	.4693	.5566	.6439	.7312	.8185	.9058	.9931	70	73.3384
7	.0382	.1255	.2128	.3001	.3874	.4747	.5620	.6494	.7367	.8240	.9113	.9986	80	83.8153
8	.0437	.1310	.2183	.3056	.3929	.4802	.5675	.6548	.7421	.8294	.9167	1.0040	90	94.2922
9	.0491	.1364	.2237	.3110	.3983	.4856	.5730	.6603	.7476	.8349	.9222	1.0095	100	104.7691
10	.0546	.1419	.2292	.3165	.4038	.4911	.5784	.6657	.7530	.8403	.9276	1.0150		
11	.0600	.1473	.2346	.3219	.4093	.4966	.5839	.6712	.7585	.8458	.9331	1.0204		
12	.0655	.1528	.2401	.3274	.4147	.5020	.5893	.6766	.7639	.8512	.9386	1.0259		
13	.0709	.1582	.2456	.3329	.4202	.5075	.5948	.6821	.7694	.8567	.9440	1.0313		
14	.0764	.1637	.2510	.3383	.4256	.5129	.6002	.6875	.7749	.8622	.9495	1.0368		
15	.0819	.1692	.2565	.3438	.4311	.5184	.6057	.6930	.7803	.8676	.9549	1.0422		

Equivalent Angle 17° 37' 32"						Altitude					Batter 3 $\frac{1}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0265	.0530	.0794	.1059	.1324	.1589	.1853	.2118	.2383	.2648	.2912	10	3.1771
1	.0017	.0281	.0546	.0811	.1076	.1340	.1605	.1870	.2135	.2399	.2664	.2929	20	6.3542
2	.0033	.0298	.0563	.0827	.1092	.1357	.1622	.1886	.2151	.2416	.2681	.2945	30	9.5313
3	.0050	.0314	.0579	.0844	.1109	.1373	.1638	.1903	.2168	.2432	.2697	.2962	40	12.7083
4	.0066	.0331	.0596	.0860	.1125	.1390	.1655	.1919	.2184	.2449	.2714	.2979	50	15.8854
5	.0083	.0347	.0612	.0877	.1142	.1407	.1671	.1936	.2201	.2466	.2730	.2995	60	19.0625
6	.0099	.0364	.0629	.0894	.1158	.1423	.1688	.1953	.2217	.2482	.2747	.3012	70	22.2396
7	.0116	.0381	.0645	.0910	.1175	.1440	.1704	.1969	.2234	.2499	.2763	.3028	80	25.4167
8	.0132	.0397	.0662	.0927	.1191	.1456	.1721	.1986	.2250	.2515	.2780	.3045	90	28.5938
9	.0149	.0414	.0678	.0943	.1208	.1473	.1737	.2002	.2267	.2532	.2796	.3061	100	31.7708
10	.0165	.0430	.0695	.0960	.1225	.1489	.1754	.2019	.2284	.2548	.2813	.3078		
11	.0182	.0447	.0712	.0976	.1241	.1506	.1771	.2035	.2300	.2565	.2830	.3094		
12	.0199	.0463	.0728	.0993	.1258	.1522	.1787	.2052	.2317	.2581	.2846	.3111		
13	.0215	.0480	.0745	.1009	.1274	.1539	.1804	.2068	.2333	.2598	.2863	.3127		
14	.0232	.0496	.0761	.1026	.1291	.1555	.1820	.2085	.2350	.2614	.2879	.3144		
15	.0248	.0513	.0778	.1042	.1307	.1572	.1837	.2102	.2366	.2631	.2896	.3161		

Hypotenuse														
0	.0000	.0874	.1749	.2623	.3498	.4372	.5246	.6121	.6995	.7869	.8744	.9618	10	10.4926
1	.0055	.0929	.1803	.2678	.3552	.4427	.5301	.6175	.7050	.7924	.8798	.9673	20	20.9851
2	.0109	.0984	.1858	.2732	.3607	.4481	.5356	.6230	.7104	.7979	.8853	.9727	30	31.4777
3	.0164	.1038	.1913	.2787	.3661	.4536	.5410	.6285	.7159	.8033	.8808	.9782	40	41.9702
4	.0219	.1093	.1967	.2842	.3716	.4590	.5465	.6339	.7214	.8088	.8962	.9837	50	52.4628
5	.0273	.1148	.2022	.2896	.3771	.4645	.5520	.6394	.7268	.8143	.9017	.9891	60	62.9554
6	.0328	.1202	.2077	.2951	.3825	.4700	.5574	.6449	.7323	.8197	.9072	.9946	70	73.4479
7	.0383	.1257	.2131	.3006	.3880	.4754	.5629	.6503	.7378	.8252	.9126	1.0001	80	83.9405
8	.0437	.1312	.2186	.3060	.3935	.4809	.5683	.6558	.7432	.8307	.9181	1.0055	90	94.4331
9	.0492	.1366	.2241	.3115	.3989	.4864	.5738	.6613	.7487	.8361	.9236	1.0110	100	104.9256
10	.0546	.1421	.2295	.3170	.4044	.4918	.5793	.6667	.7542	.8416	.9290	1.0165		
11	.0601	.1476	.2350	.3224	.4099	.4973	.5847	.6722	.7596	.8471	.9345	1.0219		
12	.0656	.1530	.2405	.3279	.4153	.5028	.5902	.6776	.7651	.8525	.9400	1.0274		
13	.0710	.1585	.2459	.3334	.4208	.5082	.5957	.6831	.7705	.8580	.9454	1.0329		
14	.0765	.1639	.2514	.3388	.4263	.5137	.6011	.6886	.7760	.8635	.9509	1.0383		
15	.0820	.1694	.2568	.3443	.4317	.5192	.6066	.6940	.7815	.8689	.9564	1.0438		

Equivalent Angle 17° 53' 46"

Altitude

Batter 3 $\frac{7}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0269	.0538	.0807	.1076	.1345	.1615	.1884	.2153	.2422	.2691	.2960	10	3.2292
1	.0017	.0286	.0555	.0824	.1093	.1362	.1631	.1900	.2170	.2439	.2708	.2977	20	6.4583
2	.0034	.0303	.0572	.0841	.1110	.1379	.1648	.1917	.2186	.2456	.2725	.2994	30	9.6875
3	.0050	.0320	.0589	.0858	.1127	.1396	.1665	.1934	.2203	.2472	.2741	.3011	40	12.9167
4	.0067	.0336	.0605	.0875	.1144	.1413	.1682	.1951	.2220	.2489	.2758	.3027	50	16.1458
5	.0084	.0353	.0622	.0891	.1160	.1430	.1699	.1968	.2237	.2506	.2775	.3044	60	19.3750
6	.0101	.0370	.0639	.0908	.1177	.1446	.1715	.1985	.2254	.2523	.2792	.3061	70	22.6042
7	.0118	.0387	.0656	.0925	.1194	.1463	.1732	.2001	.2271	.2540	.2809	.3078	80	25.8333
8	.0135	.0404	.0673	.0942	.1211	.1480	.1749	.2018	.2287	.2556	.2826	.3095	90	29.0625
9	.0151	.0420	.0690	.0959	.1228	.1497	.1766	.2035	.2304	.2573	.2842	.3111	100	32.2917
10	.0168	.0437	.0706	.0975	.1245	.1514	.1783	.2052	.2321	.2590	.2859	.3128		
11	.0185	.0454	.0723	.0992	.1261	.1530	.1800	.2069	.2338	.2607	.2876	.3145		
12	.0202	.0471	.0740	.1009	.1278	.1547	.1816	.2086	.2355	.2624	.2893	.3162		
13	.0219	.0488	.0757	.1026	.1295	.1564	.1833	.2102	.2371	.2641	.2910	.3179		
14	.0235	.0505	.0774	.1043	.1312	.1581	.1850	.2119	.2388	.2657	.2926	.3196		
15	.0252	.0521	.0790	.1060	.1329	.1598	.1867	.2136	.2405	.2674	.2943	.3212		

Hypothénuse

0	.0000	.0876	.1751	.2627	.3503	.4379	.5254	.6130	.7006	.7881	.8757	.9633	10	10.5084
1	.0055	.0930	.1806	.2682	.3558	.4433	.5309	.6185	.7060	.7936	.8812	.9687	20	21.0169
2	.0109	.0985	.1861	.2737	.3612	.4488	.5364	.6239	.7115	.7991	.8867	.9742	30	31.5253
3	.0164	.1040	.1916	.2791	.3667	.4543	.5418	.6294	.7170	.8046	.8921	.9797	40	42.0338
4	.0219	.1095	.1970	.2846	.3722	.4597	.5473	.6349	.7225	.8100	.8976	.9852	50	52.5422
5	.0274	.1149	.2025	.2901	.3776	.4652	.5528	.6404	.7279	.8155	.9031	.9906	60	63.0507
6	.0328	.1204	.2080	.2956	.3831	.4707	.5583	.6458	.7334	.8210	.9085	.9961	70	73.5591
7	.0383	.1259	.2135	.3010	.3886	.4762	.5637	.6513	.7389	.8264	.9140	1.0016	80	84.0676
8	.0438	.1314	.2189	.3065	.3941	.4816	.5692	.6568	.7443	.8319	.9195	1.0071	90	94.5760
9	.0493	.1368	.2244	.3120	.3995	.4871	.5747	.6623	.7498	.8374	.9250	1.0125	100	105.0845
10	.0547	.1423	.2299	.3174	.4050	.4926	.5802	.6677	.7553	.8429	.9304	1.0180		
11	.0602	.1478	.2353	.3229	.4105	.4981	.5856	.6732	.7608	.8483	.9359	1.0235		
12	.0657	.1532	.2408	.3284	.4160	.5035	.5911	.6787	.7662	.8538	.9414	1.0290		
13	.0712	.1587	.2463	.3339	.4214	.5090	.5966	.6841	.7717	.8593	.9469	1.0344		
14	.0766	.1642	.2518	.3393	.4269	.5145	.6020	.6896	.7772	.8648	.9523	1.0399		
15	.0821	.1697	.2572	.3448	.4324	.5199	.6075	.6951	.7827	.8702	.9578	1.0454		

Equivalent Angle 18° 09' 57"						Altitude					Batter 3 $\frac{1}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0273	.0547	.0820	.1094	.1367	.1641	.1914	.2188	.2461	.2734	.3008	10	3.2813
1	.0017	.0291	.0564	.0837	.1111	.1384	.1658	.1931	.2205	.2478	.2751	.3025	20	6.5625
2	.0034	.0308	.0581	.0854	.1128	.1401	.1675	.1948	.2222	.2495	.2769	.3042	30	9.8438
3	.0051	.0325	.0598	.0872	.1145	.1418	.1692	.1965	.2239	.2512	.2786	.3059	40	13.1250
4	.0068	.0342	.0615	.0889	.1162	.1436	.1709	.1982	.2256	.2529	.2803	.3076	50	16.4063
5	.0085	.0359	.0632	.0906	.1179	.1453	.1726	.2000	.2273	.2546	.2820	.3093	60	19.6875
6	.0103	.0376	.0649	.0923	.1196	.1470	.1743	.2017	.2290	.2563	.2837	.3110	70	22.9688
7	.0120	.0393	.0667	.0940	.1213	.1487	.1760	.2034	.2307	.2581	.2854	.3127	80	26.2500
8	.0137	.0410	.0684	.0957	.1230	.1504	.1777	.2051	.2324	.2598	.2871	.3145	90	29.5313
9	.0154	.0427	.0701	.0974	.1248	.1521	.1794	.2068	.2341	.2615	.2888	.3162	100	32.8125
10	.0171	.0444	.0718	.0991	.1265	.1538	.1812	.2085	.2358	.2632	.2905	.3179		
11	.0188	.0461	.0735	.1008	.1282	.1555	.1829	.2102	.2375	.2649	.2922	.3196		
12	.0205	.0479	.0752	.1025	.1299	.1572	.1846	.2119	.2393	.2666	.2939	.3213		
13	.0222	.0496	.0769	.1042	.1316	.1589	.1863	.2136	.2410	.2683	.2957	.3230		
14	.0239	.0513	.0786	.1060	.1333	.1606	.1880	.2153	.2427	.2700	.2974	.3247		
15	.0256	.0530	.0803	.1077	.1350	.1624	.1897	.2170	.2444	.2717	.2991	.3264		
Hypotenuse														
0	.0000	.0877	.1754	.2631	.3508	.4385	.5262	.6139	.7016	.7893	.8770	.9648	10	10.5246
1	.0055	.0932	.1809	.2686	.3563	.4440	.5317	.6194	.7071	.7948	.8825	.9702	20	21.0491
2	.0110	.0987	.1864	.2741	.3618	.4495	.5372	.6249	.7126	.8003	.8880	.9757	30	31.5737
3	.0164	.1041	.1919	.2796	.3673	.4550	.5427	.6304	.7181	.8058	.8935	.9812	40	42.0983
4	.0219	.1096	.1973	.2850	.3727	.4605	.5482	.6359	.7236	.8113	.8990	.9867	50	52.6229
5	.0274	.1151	.2028	.2905	.3782	.4659	.5536	.6413	.7290	.8168	.9045	.9922	60	63.1474
6	.0329	.1206	.2083	.2960	.3837	.4714	.5591	.6468	.7345	.8222	.9099	.9976	70	73.6720
7	.0384	.1261	.2138	.3015	.3892	.4769	.5646	.6523	.7400	.8277	.9154	1.0031	80	84.1966
8	.0439	.1316	.2193	.3070	.3947	.4824	.5701	.6578	.7455	.8332	.9209	1.0086	90	94.7211
9	.0493	.1370	.2247	.3124	.4002	.4879	.5756	.6633	.7510	.8387	.9264	1.0141	100	105.2457
10	.0548	.1425	.2302	.3179	.4056	.4933	.5810	.6687	.7565	.8442	.9319	1.0196		
11	.0603	.1480	.2357	.3234	.4111	.4988	.5865	.6742	.7619	.8496	.9373	1.0250		
12	.0658	.1535	.2412	.3289	.4166	.5043	.5920	.6797	.7674	.8551	.9428	1.0305		
13	.0713	.1590	.2467	.3344	.4221	.5098	.5975	.6852	.7729	.8606	.9483	1.0360		
14	.0767	.1644	.2522	.3399	.4276	.5153	.6030	.6907	.7784	.8661	.9538	1.0415		
15	.0822	.1699	.2576	.3453	.4330	.5207	.6085	.6962	.7839	.8716	.9593	1.0470		

Equivalent Angle 18° 26' 05"						Altitude					Batter 4 to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0278	.0556	.0833	.1111	.1389	.1667	.1944	.2222	.2500	.2778	.3056	10	3.3333
1	.0017	.0295	.0573	.0851	.1128	.1406	.1684	.1962	.2240	.2517	.2795	.3073	20	6.6667
2	.0035	.0313	.0590	.0868	.1146	.1424	.1701	.1979	.2257	.2535	.2813	.3090	30	10.0000
3	.0052	.0330	.0608	.0885	.1163	.1441	.1719	.1997	.2274	.2552	.2830	.3108	40	13.3333
4	.0069	.0347	.0625	.0903	.1181	.1458	.1736	.2014	.2292	.2569	.2847	.3125	50	16.6667
5	.0087	.0365	.0642	.0920	.1198	.1476	.1753	.2031	.2309	.2587	.2865	.3142	60	20.0000
6	.0104	.0382	.0660	.0938	.1215	.1493	.1771	.2049	.2326	.2604	.2882	.3160	70	23.3333
7	.0122	.0399	.0677	.0955	.1233	.1510	.1788	.2066	.2344	.2622	.2899	.3177	80	26.6667
8	.0139	.0417	.0694	.0972	.1250	.1528	.1806	.2083	.2361	.2639	.2917	.3194	90	30.0000
9	.0156	.0434	.0712	.0990	.1267	.1545	.1823	.2101	.2378	.2656	.2934	.3212	100	33.3333
10	.0174	.0451	.0729	.1007	.1285	.1563	.1840	.2118	.2396	.2674	.2951	.3229		
11	.0191	.0469	.0747	.1024	.1302	.1580	.1858	.2135	.2413	.2691	.2969	.3247		
12	.0208	.0486	.0764	.1042	.1319	.1597	.1875	.2153	.2431	.2708	.2986	.3264		
13	.0226	.0503	.0781	.1059	.1337	.1615	.1892	.2170	.2448	.2726	.3003	.3281		
14	.0243	.0521	.0799	.1076	.1354	.1632	.1910	.2188	.2465	.2743	.3021	.3299		
15	.0260	.0538	.0816	.1094	.1372	.1649	.1927	.2205	.2483	.2760	.3038	.3316		

Hypotenuse

0	.0000	.0878	.1757	.2635	.3514	.4392	.5270	.6149	.7027	.7906	.8784	.9663	10	10.5409
1	.0055	.0933	.1812	.2690	.3569	.4447	.5325	.6204	.7082	.7961	.8839	.9717	20	21.0819
2	.0110	.0988	.1867	.2745	.3623	.4502	.5380	.6259	.7137	.8015	.8894	.9772	30	31.6228
3	.0165	.1043	.1922	.2800	.3678	.4557	.5435	.6314	.7192	.8070	.8949	.9827	40	42.1637
4	.0220	.1098	.1976	.2855	.3733	.4612	.5490	.6368	.7247	.8125	.9004	.9882	50	52.7046
5	.0275	.1153	.2031	.2910	.3788	.4667	.5545	.6423	.7302	.8180	.9059	.9937	60	63.2456
6	.0329	.1208	.2086	.2965	.3843	.4721	.5600	.6478	.7357	.8235	.9114	.9992	70	73.7865
7	.0384	.1263	.2141	.3020	.3898	.4776	.5655	.6533	.7412	.8290	.9168	1.0047	80	84.3274
8	.0439	.1318	.2196	.3074	.3953	.4831	.5710	.6588	.7466	.8345	.9223	1.0102	90	94.8683
9	.0494	.1373	.2251	.3129	.4008	.4886	.5765	.6643	.7521	.8400	.9278	1.0157	100	105.4093
10	.0549	.1427	.2306	.3184	.4063	.4941	.5819	.6698	.7576	.8455	.9333	1.0212		
11	.0604	.1482	.2361	.3239	.4118	.4996	.5874	.6753	.7631	.8510	.9388	1.0266		
12	.0659	.1537	.2416	.3294	.4172	.5051	.5929	.6808	.7686	.8565	.9443	1.0321		
13	.0714	.1592	.2471	.3349	.4227	.5106	.5984	.6863	.7741	.8619	.9498	1.0376		
14	.0769	.1647	.2525	.3404	.4282	.5161	.6039	.6917	.7796	.8674	.9553	1.0431		
15	.0824	.1702	.2580	.3459	.4337	.5216	.6094	.6972	.7851	.8729	.9608	1.0486		

Equivalent Angle 18° 42' 10"						Altitude					Batter 4 ¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0282	.0564	.0846	.1128	.1411	.1693	.1975	.2257	.2539	.2821	.3103	10	3.3854
1	.0018	.0300	.0582	.0864	.1146	.1428	.1710	.1992	.2275	.2557	.2839	.3121	20	6.7708
2	.0035	.0317	.0600	.0882	.1164	.1446	.1728	.2010	.2292	.2574	.2856	.3139	30	10.1563
3	.0053	.0335	.0617	.0899	.1181	.1463	.1746	.2028	.2310	.2592	.2874	.3156	40	13.5417
4	.0071	.0353	.0635	.0917	.1199	.1481	.1763	.2045	.2327	.2610	.2892	.3174	50	16.9271
5	.0088	.0370	.0652	.0935	.1217	.1499	.1781	.2063	.2345	.2627	.2909	.3191	60	20.3125
6	.0106	.0388	.0670	.0952	.1234	.1516	.1799	.2081	.2363	.2645	.2927	.3209	70	23.6979
7	.0123	.0406	.0688	.0970	.1252	.1534	.1816	.2098	.2380	.2662	.2945	.3227	80	27.0833
8	.0141	.0423	.0705	.0987	.1270	.1552	.1834	.2116	.2398	.2680	.2962	.3244	90	30.4688
9	.0159	.0441	.0723	.1005	.1287	.1569	.1851	.2134	.2416	.2698	.2980	.3262	100	33.8542
10	.0176	.0458	.0741	.1023	.1305	.1587	.1869	.2151	.2433	.2715	.2998	.3280		
11	.0194	.0476	.0758	.1040	.1322	.1605	.1887	.2169	.2451	.2733	.3015	.3297		
12	.0212	.0494	.0776	.1058	.1340	.1622	.1904	.2186	.2469	.2751	.3033	.3315		
13	.0229	.0511	.0793	.1076	.1358	.1640	.1922	.2204	.2486	.2768	.3050	.3333		
14	.0247	.0529	.0811	.1093	.1375	.1657	.1940	.2222	.2504	.2786	.3068	.3350		
15	.0264	.0547	.0829	.1111	.1393	.1675	.1957	.2239	.2521	.2804	.3086	.3368		

Hypotenuse

0	.0000	.0880	.1760	.2639	.3519	.4399	.5279	.6159	.7038	.7918	.8798	.9678	10	10.5575
1	.0055	.0935	.1815	.2694	.3574	.4454	.5334	.6214	.7093	.7973	.8853	.9733	20	21.1150
2	.0110	.0990	.1870	.2749	.3629	.4509	.5389	.6269	.7148	.8028	.8908	.9788	30	31.6725
3	.0165	.1045	.1925	.2804	.3684	.4564	.5444	.6324	.7203	.8083	.8963	.9843	40	42.2300
4	.0220	.1100	.1980	.2859	.3739	.4619	.5499	.6378	.7258	.8138	.9018	.9898	50	52.7876
5	.0275	.1155	.2035	.2914	.3794	.4674	.5554	.6433	.7313	.8193	.9073	.9953	60	63.3451
6	.0330	.1210	.2090	.2969	.3849	.4729	.5609	.6488	.7368	.8248	.9128	1.0008	70	73.9026
7	.0385	.1265	.2144	.3024	.3904	.4784	.5664	.6543	.7423	.8308	.9183	1.0063	80	84.4601
8	.0440	.1320	.2199	.3079	.3959	.4839	.5719	.6598	.7478	.8358	.9238	1.0118	90	95.0176
9	.0495	.1375	.2254	.3134	.4014	.4894	.5774	.6653	.7533	.8413	.9293	1.0173	100	105.5751
10	.0550	.1430	.2309	.3189	.4069	.4949	.5829	.6708	.7588	.8468	.9348	1.0228		
11	.0605	.1485	.2364	.3244	.4124	.5004	.5884	.6763	.7643	.8523	.9403	1.0283		
12	.0660	.1540	.2419	.3299	.4179	.5059	.5939	.6818	.7698	.8578	.9458	1.0338		
13	.0715	.1595	.2474	.3354	.4234	.5114	.5994	.6873	.7753	.8633	.9513	1.0393		
14	.0770	.1650	.2529	.3409	.4289	.5169	.6049	.6928	.7808	.8688	.9568	1.0448		
15	.0825	.1705	.2584	.3464	.4344	.5224	.6104	.6983	.7863	.8743	.9623	1.0503		

Equivalent Angle 18° 58' 13"

Altitude

Batter $4\frac{1}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0286	.0573	.0859	.1146	.1432	.1719	.2005	.2292	.2578	.2865	.3151	10	3.4375
1	.0018	.0304	.0591	.0877	.1164	.1450	.1737	.2023	.2310	.2596	.2882	.3169	20	6.8751
2	.0036	.0322	.0609	.0895	.1182	.1468	.1755	.2041	.2327	.2614	.2900	.3187	30	10.3125
3	.0054	.0340	.0627	.0913	.1200	.1486	.1772	.2059	.2345	.2632	.2918	.3205	40	13.7500
4	.0072	.0358	.0645	.0931	.1217	.1504	.1790	.2077	.2363	.2650	.2936	.3223	50	17.1875
5	.0090	.0376	.0662	.0949	.1235	.1522	.1808	.2095	.2381	.2668	.2954	.3241	60	20.6250
6	.0107	.0394	.0680	.0967	.1253	.1540	.1826	.2113	.2399	.2686	.2972	.3258	70	24.0625
7	.0125	.0412	.0698	.0985	.1271	.1558	.1844	.2131	.2417	.2703	.2990	.3276	80	27.5000
8	.0143	.0430	.0716	.1003	.1289	.1576	.1862	.2148	.2435	.2721	.3008	.3294	90	30.9375
9	.0161	.0448	.0734	.1021	.1307	.1593	.1880	.2166	.2453	.2739	.3026	.3312	100	34.3750
10	.0179	.0465	.0752	.1038	.1325	.1611	.1898	.2184	.2471	.2757	.3044	.3330		
11	.0197	.0483	.0770	.1056	.1343	.1629	.1916	.2202	.2489	.2775	.3062	.3348		
12	.0215	.0501	.0788	.1074	.1361	.1647	.1934	.2220	.2507	.2793	.3079	.3366		
13	.0233	.0519	.0806	.1092	.1379	.1665	.1951	.2238	.2524	.2811	.3097	.3384		
14	.0251	.0537	.0824	.1110	.1396	.1683	.1969	.2256	.2542	.2829	.3115	.3402		
15	.0269	.0555	.0841	.1128	.1414	.1701	.1987	.2274	.2560	.2847	.3133	.3420		

Hypotenuse

0	.0000	.0881	.1762	.2644	.3525	.4406	.5287	.6168	.7050	.7931	.8812	.9693	10	10.5743
1	.0055	.0936	.1817	.2699	.3580	.4461	.5342	.6223	.7105	.7986	.8867	.9748	20	21.1487
2	.0110	.0991	.1873	.2754	.3635	.4516	.5397	.6279	.7160	.8041	.8922	.9803	30	31.7230
3	.0165	.1046	.1928	.2809	.3690	.4571	.5452	.6334	.7215	.8096	.8977	.9858	40	42.2973
4	.0220	.1101	.1983	.2864	.3745	.4626	.5507	.6389	.7270	.8151	.9032	.9913	50	52.8716
5	.0275	.1157	.2038	.2919	.3800	.4681	.5563	.6444	.7325	.8206	.9087	.9969	60	63.4460
6	.0330	.1212	.2093	.2974	.3855	.4736	.5618	.6499	.7380	.8261	.9142	1.0024	70	74.0203
7	.0386	.1267	.2148	.3029	.3910	.4791	.5673	.6554	.7435	.8316	.9197	1.0079	80	84.5946
8	.0441	.1322	.2203	.3084	.3965	.4847	.5728	.6609	.7490	.8371	.9253	1.0134	90	95.1689
9	.0496	.1377	.2258	.3139	.4020	.4902	.5783	.6664	.7545	.8426	.9308	1.0189	100	105.7433
10	.0551	.1432	.2313	.3194	.4076	.4957	.5838	.6719	.7600	.8481	.9363	1.0244		
11	.0606	.1487	.2368	.3249	.4131	.5012	.5893	.6774	.7655	.8537	.9418	1.0299		
12	.0661	.1542	.2423	.3304	.4186	.5067	.5948	.6829	.7710	.8592	.9473	1.0354		
13	.0716	.1597	.2478	.3360	.4241	.5122	.6003	.6884	.7766	.8647	.9528	1.0409		
14	.0771	.1652	.2533	.3415	.4296	.5177	.6058	.6939	.7821	.8702	.9583	1.0464		
15	.0826	.1707	.2589	.3470	.4351	.5232	.6113	.6994	.7876	.8757	.9638	1.0519		

Equivalent Angle 19° 14' 12"						Altitude				Batter 4 ³ / ₁₆ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0291	.0582	.0872	.1163	.1454	.1745	.2036	.2326	.2617	.2908	.3199	10	3.4896
1	.0018	.0309	.0600	.0891	.1181	.1472	.1763	.2054	.2345	.2635	.2926	.3217	20	6.9792
2	.0036	.0327	.0618	.0909	.1200	.1490	.1781	.2072	.2363	.2654	.2944	.3235	30	10.4688
3	.0055	.0345	.0636	.0927	.1218	.1509	.1799	.2090	.2381	.2672	.2963	.3253	40	13.9583
4	.0073	.0363	.0654	.0945	.1236	.1527	.1817	.2108	.2399	.2690	.2981	.3271	50	17.4479
5	.0091	.0382	.0672	.0963	.1254	.1545	.1836	.2126	.2417	.2708	.2999	.3290	60	20.9375
6	.0109	.0400	.0691	.0981	.1272	.1563	.1854	.2145	.2435	.2726	.3017	.3308	70	24.4271
7	.0127	.0418	.0709	.1000	.1290	.1581	.1872	.2163	.2454	.2744	.3035	.3326	80	27.9167
8	.0145	.0436	.0727	.1018	.1309	.1599	.1890	.2181	.2472	.2763	.3053	.3344	90	31.4063
9	.0164	.0454	.0745	.1036	.1327	.1618	.1908	.2199	.2490	.2781	.3072	.3362	100	34.8958
10	.0182	.0473	.0763	.1054	.1345	.1636	.1927	.2217	.2508	.2799	.3090	.3381		
11	.0200	.0491	.0782	.1072	.1363	.1654	.1945	.2236	.2526	.2817	.3108	.3399		
12	.0218	.0509	.0800	.1090	.1381	.1672	.1963	.2254	.2544	.2835	.3126	.3417		
13	.0236	.0527	.0818	.1109	.1399	.1690	.1981	.2272	.2563	.2853	.3144	.3435		
14	.0254	.0545	.0836	.1127	.1418	.1708	.1999	.2290	.2581	.2872	.3162	.3453		
15	.0273	.0563	.0854	.1145	.1436	.1727	.2017	.2308	.2599	.2890	.3181	.3471		

Hypotenuse

0	.0000	.0883	.1765	.2648	.3530	.4413	.5296	.6178	.7061	.7944	.8826	.9709	10	10.5914
1	.0055	.0938	.1820	.2703	.3586	.4468	.5351	.6233	.7116	.7999	.8881	.9764	20	21.1827
2	.0110	.0993	.1876	.2758	.3641	.4523	.5406	.6289	.7171	.8054	.8936	.9819	30	31.7741
3	.0165	.1048	.1931	.2813	.3696	.4579	.5461	.6344	.7226	.8109	.8992	.9874	40	42.3655
4	.0221	.1103	.1986	.2868	.3751	.4634	.5516	.6399	.7282	.8164	.9047	.9929	50	52.9569
5	.0276	.1158	.2041	.2924	.3806	.4689	.5572	.6454	.7337	.8219	.9102	.9985	60	63.5482
6	.0331	.1214	.2096	.2979	.3861	.4744	.5627	.6509	.7392	.8275	.9157	1.0040	70	74.1396
7	.0386	.1269	.2151	.3034	.3917	.4799	.5682	.6564	.7447	.8330	.9212	1.0095	80	84.7310
8	.0441	.1324	.2207	.3089	.3972	.4854	.5737	.6620	.7502	.8385	.9267	1.0150	90	95.3224
9	.0496	.1379	.2262	.3144	.4027	.4910	.5792	.6675	.7557	.8440	.9323	1.0205	100	105.9137
10	.0552	.1434	.2317	.3199	.4082	.4965	.5847	.6730	.7613	.8495	.9378	1.0260		
11	.0607	.1489	.2372	.3255	.4137	.5020	.5902	.6785	.7668	.8550	.9433	1.0316		
12	.0662	.1545	.2427	.3310	.4192	.5075	.5958	.6840	.7723	.8605	.9488	1.0371		
13	.0717	.1600	.2482	.3365	.4248	.5130	.6013	.6895	.7778	.8661	.9543	1.0426		
14	.0772	.1655	.2538	.3420	.4303	.5185	.6068	.6951	.7833	.8716	.9598	1.0481		
15	.0827	.1710	.2593	.3475	.4358	.5241	.6123	.7006	.7888	.8771	.9654	1.0536		

Equivalent Angle 19° 30' 08"

Altitude

Batter 4 $\frac{1}{4}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0295	.0590	.0885	.1181	.1476	.1771	.2066	.2361	.2656	.2951	.3247	10	3.5417
1	.0018	.0314	.0609	.0904	.1199	.1494	.1789	.2084	.2380	.2675	.2970	.3265	20	7.0833
2	.0037	.0332	.0627	.0922	.1217	.1513	.1808	.2103	.2398	.2693	.2988	.3283	30	10.6250
3	.0055	.0350	.0646	.0941	.1236	.1531	.1826	.2121	.2416	.2712	.3007	.3302	40	14.1667
4	.0074	.0369	.0664	.0959	.1254	.1549	.1845	.2140	.2435	.2730	.3025	.3320	50	17.7083
5	.0092	.0387	.0683	.0978	.1273	.1568	.1863	.2158	.2453	.2748	.3044	.3339	60	21.2500
6	.0111	.0406	.0701	.0996	.1291	.1586	.1882	.2177	.2472	.2767	.3062	.3357	70	24.7917
7	.0129	.0424	.0719	.1015	.1310	.1605	.1900	.2195	.2490	.2785	.3081	.3376	80	28.3333
8	.0148	.0443	.0738	.1033	.1328	.1623	.1918	.2214	.2509	.2804	.3099	.3394	90	31.8750
9	.0166	.0461	.0756	.1051	.1347	.1642	.1937	.2232	.2527	.2822	.3117	.3413	100	35.4167
10	.0184	.0480	.0775	.1070	.1365	.1660	.1955	.2250	.2546	.2841	.3136	.3431		
11	.0203	.0498	.0793	.1088	.1383	.1679	.1974	.2269	.2564	.2859	.3154	.3449		
12	.0221	.0516	.0812	.1107	.1402	.1697	.1992	.2287	.2582	.2878	.3173	.3468		
13	.0240	.0535	.0830	.1125	.1420	.1715	.2011	.2306	.2601	.2896	.3191	.3486		
14	.0258	.0553	.0849	.1144	.1439	.1734	.2029	.2324	.2619	.2914	.3210	.3505		
15	.0277	.0572	.0867	.1162	.1457	.1752	.2048	.2343	.2638	.2933	.3228	.3523		

Hypothenuse

0	.0000	.0884	.1768	.2652	.3536	.4420	.5304	.6188	.7072	.7956	.8841	.9725	10	10.6086
1	.0055	.0939	.1823	.2707	.3591	.4476	.5360	.6244	.7128	.8012	.8896	.9780	20	21.2173
2	.0111	.0995	.1879	.2763	.3647	.4531	.5415	.6299	.7183	.8067	.8951	.9835	30	31.8259
3	.0166	.1050	.1934	.2818	.3702	.4586	.5470	.6354	.7238	.8122	.9006	.9890	40	42.4346
4	.0221	.1105	.1989	.2873	.3757	.4641	.5525	.6409	.7293	.8177	.9062	.9946	50	53.0432
5	.0276	.1160	.2044	.2928	.3812	.4697	.5581	.6465	.7349	.8233	.9117	1.0001	60	63.6519
6	.0332	.1216	.2100	.2984	.3868	.4752	.5636	.6520	.7404	.8288	.9172	1.0056	70	74.2605
7	.0387	.1271	.2155	.3039	.3923	.4807	.5691	.6575	.7459	.8343	.9227	1.0111	80	84.8692
8	.0442	.1326	.2210	.3094	.3978	.4862	.5746	.6630	.7514	.8399	.9283	1.0167	90	95.4778
9	.0497	.1381	.2265	.3149	.4033	.4918	.5802	.6686	.7570	.8454	.9338	1.0222	100	106.0865
10	.0553	.1437	.2321	.3205	.4089	.4973	.5857	.6741	.7625	.8509	.9393	1.0277		
11	.0608	.1492	.2376	.3260	.4144	.5028	.5912	.6796	.7680	.8564	.9448	1.0332		
12	.0663	.1547	.2431	.3315	.4199	.5083	.5967	.6851	.7735	.8620	.9504	1.0388		
13	.0718	.1602	.2486	.3370	.4255	.5139	.6023	.6907	.7791	.8675	.9559	1.0443		
14	.0774	.1658	.2542	.3426	.4310	.5194	.6078	.6962	.7846	.8730	.9614	1.0498		
15	.0829	.1713	.2597	.3481	.4365	.5249	.6133	.7017	.7901	.8785	.9669	1.0553		

Equivalent Angle 19° 46' or"						Altitude					Batter 4 ⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0299	.0599	.0898	.1198	.1497	.1797	.2096	.2396	.2695	.2995	.3294	10	3.5938
1	.0019	.0318	.0618	.0917	.1217	.1516	.1816	.2115	.2415	.2714	.3014	.3313	20	7.1875
2	.0037	.0337	.0636	.0936	.1235	.1535	.1834	.2134	.2433	.2733	.3032	.3332	30	10.7813
3	.0056	.0356	.0655	.0955	.1254	.1554	.1853	.2153	.2452	.2751	.3051	.3350	40	14.3750
4	.0075	.0374	.0674	.0973	.1273	.1572	.1872	.2171	.2471	.2770	.3070	.3369	50	17.9688
5	.0094	.0393	.0693	.0992	.1292	.1591	.1890	.2190	.2489	.2789	.3088	.3388	60	21.5625
6	.0112	.0412	.0711	.1011	.1310	.1610	.1909	.2209	.2508	.2808	.3107	.3407	70	25.1563
7	.0131	.0431	.0730	.1029	.1329	.1628	.1928	.2227	.2527	.2826	.3126	.3425	80	28.7500
8	.0150	.0449	.0749	.1048	.1348	.1647	.1947	.2246	.2546	.2845	.3145	.3444	90	32.3438
9	.0168	.0468	.0767	.1067	.1366	.1666	.1965	.2265	.2564	.2864	.3163	.3463	100	35.9375
10	.0187	.0487	.0786	.1086	.1385	.1685	.1984	.2284	.2583	.2882	.3182	.3481		
11	.0206	.0505	.0805	.1104	.1404	.1703	.2003	.2302	.2602	.2901	.3201	.3500		
12	.0225	.0524	.0824	.1123	.1423	.1722	.2021	.2321	.2620	.2920	.3219	.3519		
13	.0243	.0543	.0842	.1142	.1441	.1741	.2040	.2340	.2639	.2939	.3238	.3538		
14	.0262	.0562	.0861	.1160	.1460	.1759	.2059	.2358	.2658	.2957	.3257	.3556		
15	.0281	.0580	.0880	.1179	.1479	.1778	.2078	.2377	.2677	.2976	.3276	.3575		

Hypotenuse

0	.0000	.0886	.1771	.2657	.3542	.4428	.5313	.6199	.7084	.7970	.8855	.9741	10	10.6261
1	.0055	.0941	.1826	.2712	.3597	.4483	.5368	.6254	.7139	.8025	.8910	.9796	20	21.2523
2	.0111	.0996	.1882	.2767	.3653	.4538	.5424	.6309	.7195	.8080	.8966	.9851	30	31.8784
3	.0166	.1052	.1937	.2823	.3708	.4594	.5479	.6365	.7250	.8136	.9021	.9907	40	42.5046
4	.0221	.1107	.1992	.2878	.3763	.4649	.5534	.6420	.7305	.8191	.9077	.9962	50	53.1307
5	.0277	.1162	.2048	.2933	.3819	.4704	.5590	.6475	.7361	.8246	.9132	1.0017	60	63.7569
6	.0332	.1218	.2103	.2989	.3874	.4760	.5645	.6531	.7416	.8302	.9187	1.0073	70	74.3830
7	.0387	.1273	.2158	.3044	.3929	.4815	.5700	.6586	.7472	.8357	.9243	1.0128	80	85.0092
8	.0443	.1328	.2214	.3099	.3985	.4870	.5756	.6641	.7527	.8412	.9298	1.0183	90	95.6353
9	.0498	.1384	.2269	.3155	.4040	.4926	.5811	.6697	.7582	.8468	.9353	1.0239	100	106.2615
10	.0553	.1439	.2324	.3210	.4095	.4981	.5867	.6752	.7638	.8523	.9409	1.0294		
11	.0609	.1494	.2380	.3265	.4151	.5036	.5922	.6807	.7693	.8578	.9464	1.0349		
12	.0664	.1550	.2435	.3321	.4206	.5092	.5977	.6863	.7748	.8634	.9519	1.0405		
13	.0719	.1605	.2491	.3376	.4262	.5147	.6033	.6918	.7804	.8689	.9575	1.0460		
14	.0775	.1660	.2546	.3431	.4317	.5202	.6088	.6973	.7859	.8744	.9630	1.0515		
15	.0830	.1716	.2601	.3487	.4372	.5258	.6143	.7029	.7914	.8800	.9685	1.0571		

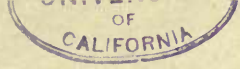
Equivalent Angle 20° or 51"						Altitude					Batter 4 $\frac{3}{8}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0304	.0608	.0911	.1215	.1519	.1823	.2127	.2431	.2734	.3038	.3342	10	3.6458
1	.0019	.0323	.0627	.0930	.1234	.1538	.1842	.2146	.2450	.2753	.3057	.3361	20	7.2917
2	.0038	.0342	.0646	.0949	.1253	.1557	.1861	.2165	.2469	.2772	.3076	.3380	30	10.9375
3	.0057	.0361	.0665	.0968	.1272	.1576	.1880	.2184	.2488	.2791	.3095	.3399	40	14.5833
4	.0076	.0380	.0684	.0987	.1291	.1595	.1899	.2203	.2507	.2810	.3114	.3418	50	18.2292
5	.0095	.0399	.0703	.1006	.1310	.1614	.1918	.2222	.2525	.2829	.3133	.3437	60	21.8750
6	.0114	.0418	.0722	.1025	.1329	.1633	.1937	.2241	.2544	.2848	.3152	.3456	70	25.5208
7	.0133	.0437	.0741	.1044	.1348	.1652	.1956	.2260	.2563	.2867	.3171	.3475	80	29.1667
8	.0152	.0456	.0760	.1063	.1367	.1671	.1975	.2279	.2582	.2886	.3190	.3494	90	32.8125
9	.0171	.0475	.0779	.1082	.1386	.1690	.1994	.2298	.2601	.2905	.3209	.3513	100	36.4583
10	.0190	.0494	.0798	.1101	.1405	.1709	.2013	.2317	.2620	.2924	.3228	.3532		
11	.0209	.0513	.0817	.1120	.1424	.1728	.2032	.2336	.2639	.2943	.3247	.3551		
12	.0228	.0532	.0836	.1139	.1443	.1747	.2051	.2355	.2658	.2962	.3266	.3570		
13	.0247	.0551	.0854	.1158	.1462	.1766	.2070	.2374	.2677	.2981	.3285	.3589		
14	.0266	.0570	.0873	.1177	.1481	.1785	.2089	.2393	.2696	.3000	.3304	.3608		
15	.0285	.0589	.0892	.1196	.1500	.1804	.2108	.2412	.2715	.3019	.3323	.3627		

Hypotenuse

0	.0000	.0887	.1774	.2661	.3548	.4435	.5322	.6209	.7096	.7983	.8870	.9757	10	10.6439
1	.0055	.0942	.1829	.2716	.3603	.4490	.5377	.6264	.7151	.8038	.8925	.9812	20	21.2878
2	.0111	.0998	.1885	.2772	.3659	.4546	.5433	.6320	.7207	.8094	.8981	.9868	30	31.9316
3	.0166	.1053	.1940	.2827	.3714	.4601	.5488	.6375	.7262	.8149	.9036	.9923	40	42.5755
4	.0222	.1109	.1996	.2883	.3770	.4657	.5544	.6431	.7318	.8205	.9092	.9979	50	53.2194
5	.0277	.1164	.2051	.2938	.3825	.4712	.5599	.6486	.7373	.8260	.9147	1.0034	60	63.8633
6	.0333	.1220	.2107	.2994	.3881	.4768	.5655	.6542	.7429	.8316	.9203	1.0090	70	74.5071
7	.0388	.1275	.2162	.3049	.3936	.4823	.5710	.6597	.7484	.8371	.9258	1.0145	80	85.1510
8	.0443	.1330	.2217	.3104	.3991	.4878	.5765	.6652	.7539	.8426	.9313	1.0200	90	95.7949
9	.0499	.1386	.2273	.3160	.4047	.4934	.5821	.6708	.7595	.8482	.9369	1.0256	100	106.4388
10	.0554	.1441	.2328	.3215	.4102	.4989	.5876	.6763	.7650	.8537	.9424	1.0311		
11	.0610	.1497	.2384	.3271	.4158	.5045	.5932	.6819	.7706	.8593	.9480	1.0367		
12	.0665	.1552	.2439	.3326	.4213	.5100	.5987	.6874	.7761	.8648	.9535	1.0422		
13	.0721	.1608	.2495	.3382	.4269	.5156	.6043	.6930	.7817	.8704	.9591	1.0478		
14	.0776	.1663	.2550	.3437	.4324	.5211	.6098	.6985	.7872	.8759	.9646	1.0533		
15	.0832	.1719	.2606	.3493	.4380	.5267	.6153	.7040	.7927	.8814	.9701	1.0588		

Equivalent Angle 20° 17' 38"						Altitude					Batter 4 $\frac{7}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0308	.0616	.0924	.1233	.1541	.1849	.2157	.2465	.2773	.3082	.3390	10	3.6979
1	.0019	.0327	.0636	.0944	.1252	.1560	.1868	.2176	.2485	.2793	.3101	.3409	20	7.3958
2	.0039	.0347	.0655	.0963	.1271	.1579	.1887	.2196	.2504	.2812	.3120	.3428	30	11.0938
3	.0058	.0366	.0674	.0982	.1290	.1599	.1907	.2215	.2523	.2831	.3139	.3448	40	14.7917
4	.0077	.0385	.0693	.1002	.1310	.1618	.1926	.2234	.2542	.2850	.3159	.3467	50	18.4896
5	.0096	.0404	.0713	.1021	.1329	.1637	.1945	.2253	.2562	.2870	.3178	.3486	60	22.1875
6	.0116	.0424	.0732	.1040	.1348	.1656	.1965	.2273	.2581	.2889	.3197	.3505	70	25.8854
7	.0135	.0443	.0751	.1059	.1367	.1676	.1984	.2292	.2600	.2908	.3216	.3525	80	29.5833
8	.0154	.0462	.0770	.1079	.1387	.1695	.2003	.2311	.2619	.2928	.3236	.3544	90	33.2813
9	.0173	.0481	.0790	.1098	.1406	.1714	.2022	.2330	.2639	.2947	.3255	.3563	100	36.9792
10	.0193	.0501	.0809	.1117	.1425	.1733	.2042	.2350	.2658	.2966	.3274	.3582		
11	.0212	.0520	.0828	.1136	.1444	.1753	.2061	.2369	.2677	.2985	.3293	.3602		
12	.0231	.0539	.0847	.1156	.1464	.1772	.2080	.2388	.2696	.3005	.3313	.3621		
13	.0250	.0559	.0867	.1175	.1483	.1791	.2099	.2407	.2716	.3024	.3332	.3640		
14	.0270	.0578	.0886	.1194	.1502	.1810	.2119	.2427	.2735	.3043	.3351	.3659		
15	.0289	.0597	.0905	.1213	.1522	.1830	.2138	.2446	.2754	.3062	.3370	.3679		

Hypotenuse														
0	.0000	.0888	.1777	.2665	.3554	.4442	.5331	.6219	.7108	.7996	.8885	.9773	10	10.6618
1	.0056	.0944	.1833	.2721	.3609	.4498	.5386	.6275	.7163	.8052	.8940	.9829	20	21.3237
2	.0111	.1000	.1888	.2777	.3665	.4553	.5442	.6330	.7219	.8107	.8996	.9884	30	31.9855
3	.0167	.1055	.1944	.2832	.3721	.4609	.5498	.6386	.7274	.8163	.9051	.9940	40	42.6473
4	.0222	.1111	.1999	.2888	.3776	.4665	.5553	.6442	.7330	.8218	.9107	.9995	50	53.3091
5	.0278	.1166	.2055	.2943	.3832	.4720	.5609	.6497	.7386	.8274	.9163	1.0051	60	63.9710
6	.0333	.1222	.2110	.2999	.3887	.4776	.5664	.6553	.7441	.8330	.9218	1.0107	70	74.6328
7	.0389	.1277	.2166	.3054	.3943	.4831	.5720	.6608	.7497	.8385	.9274	1.0162	80	85.2946
8	.0444	.1333	.2221	.3110	.3998	.4887	.5775	.6664	.7552	.8441	.9329	1.0218	90	95.9565
9	.0500	.1388	.2277	.3165	.4054	.4942	.5831	.6719	.7608	.8496	.9385	1.0273	100	106.6183
10	.0555	.1444	.2332	.3221	.4109	.4998	.5886	.6775	.7663	.8552	.9440	1.0329		
11	.0611	.1499	.2388	.3276	.4165	.5053	.5942	.6830	.7719	.8607	.9496	1.0384		
12	.0666	.1555	.2443	.3322	.4220	.5109	.5997	.6886	.7774	.8663	.9551	1.0440		
13	.0722	.1610	.2499	.3387	.4276	.5164	.6053	.6941	.7830	.8718	.9607	1.0495		
14	.0777	.1666	.2554	.3443	.4331	.5220	.6108	.6997	.7885	.8774	.9662	1.0551		
15	.0833	.1721	.2610	.3498	.4387	.5275	.6164	.7052	.7941	.8829	.9718	1.0606		



Equivalent Angle 20° 33' 22"

Altitude

Batter 4½ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0313	.0625	.0938	.1250	.1563	.1875	.2188	.2500	.2813	.3125	.3438	10	3.7500
1	.0020	.0332	.0645	.0957	.1270	.1582	.1895	.2207	.2520	.2832	.3145	.3457	20	7.5000
2	.0039	.0352	.0664	.0977	.1289	.1602	.1914	.2227	.2539	.2852	.3164	.3477	30	11.2500
3	.0059	.0371	.0684	.0996	.1309	.1621	.1934	.2246	.2559	.2871	.3184	.3496	40	15.0000
4	.0078	.0391	.0703	.1016	.1328	.1641	.1953	.2266	.2578	.2891	.3203	.3516	50	18.7500
5	.0098	.0410	.0723	.1035	.1348	.1660	.1973	.2285	.2598	.2910	.3223	.3535	60	22.5000
6	.0117	.0430	.0742	.1055	.1367	.1680	.1992	.2305	.2617	.2930	.3242	.3555	70	26.2500
7	.0137	.0449	.0762	.1074	.1387	.1699	.2012	.2324	.2637	.2949	.3262	.3574	80	30.0000
8	.0156	.0469	.0781	.1094	.1406	.1719	.2031	.2344	.2656	.2969	.3281	.3594	90	33.7500
9	.0176	.0488	.0801	.1113	.1426	.1738	.2051	.2363	.2676	.2988	.3301	.3613	100	37.5000
10	.0195	.0508	.0820	.1133	.1445	.1758	.2070	.2383	.2695	.3008	.3320	.3633		
11	.0215	.0527	.0840	.1152	.1465	.1777	.2090	.2402	.2715	.3027	.3340	.3652		
12	.0234	.0547	.0859	.1172	.1484	.1797	.2109	.2422	.2734	.3047	.3359	.3672		
13	.0254	.0566	.0879	.1191	.1504	.1816	.2129	.2441	.2754	.3066	.3379	.3691		
14	.0273	.0586	.0898	.1211	.1523	.1836	.2148	.2461	.2773	.3086	.3398	.3711		
15	.0293	.0605	.0918	.1230	.1543	.1855	.2168	.2480	.2793	.3105	.3418	.3730		

Hypotenuse

0	.0000	.0890	.1780	.2670	.3560	.4450	.5340	.6230	.7120	.8010	.8900	.9790	10	10.6800
1	.0056	.0946	.1836	.2726	.3616	.4506	.5396	.6286	.7176	.8066	.8956	.9846	20	21.3600
2	.0111	.1001	.1891	.2781	.3671	.4561	.5451	.6341	.7231	.8121	.9011	.9901	30	32.0400
3	.0167	.1057	.1947	.2837	.3727	.4617	.5507	.6397	.7287	.8177	.9067	.9957	40	42.7200
4	.0223	.1113	.2003	.2893	.3783	.4673	.5563	.6453	.7343	.8233	.9123	1.0013	50	53.4000
5	.0278	.1168	.2058	.2948	.3838	.4728	.5618	.6508	.7398	.8288	.9178	1.0068	60	64.0800
6	.0334	.1224	.2114	.3004	.3894	.4784	.5674	.6564	.7454	.8344	.9234	1.0124	70	74.7600
7	.0389	.1279	.2169	.3059	.3949	.4839	.5729	.6619	.7509	.8399	.9289	1.0179	80	85.4400
8	.0445	.1335	.2225	.3115	.4005	.4895	.5785	.6675	.7565	.8455	.9345	1.0235	90	96.1200
9	.0501	.1391	.2281	.3171	.4061	.4951	.5841	.6731	.7621	.8511	.9401	1.0291	100	106.8000
10	.0556	.1446	.2336	.3226	.4116	.5006	.5896	.6786	.7676	.8566	.9456	1.0346		
11	.0612	.1502	.2392	.3282	.4172	.5062	.5952	.6842	.7732	.8622	.9512	1.0402		
12	.0668	.1558	.2448	.3338	.4228	.5118	.6008	.6898	.7788	.8678	.9568	1.0458		
13	.0723	.1613	.2503	.3393	.4283	.5173	.6063	.6953	.7843	.8733	.9623	1.0513		
14	.0779	.1669	.2559	.3449	.4339	.5229	.6119	.7009	.7899	.8789	.9679	1.0569		
15	.0834	.1724	.2614	.3504	.4394	.5284	.6174	.7064	.7954	.8844	.9734	1.0624		

Equivalent Angle 20° 49' 02"							Altitude					Batter 4 ⁹ / ₁₆ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0317	.0634	.0951	.1267	.1584	.1901	.2218	.2535	.2852	.3169	.3485	10	3.8021
1	.0020	.0337	.0653	.0970	.1287	.1604	.1921	.2238	.2555	.2871	.3188	.3505	20	7.6042
2	.0040	.0356	.0673	.0990	.1307	.1624	.1941	.2257	.2574	.2891	.3208	.3525	30	11.4063
3	.0059	.0376	.0693	.1010	.1327	.1644	.1960	.2277	.2594	.2911	.3228	.3545	40	15.2083
4	.0079	.0396	.0713	.1030	.1347	.1663	.1980	.2297	.2614	.2931	.3248	.3564	50	19.0104
5	.0099	.0416	.0733	.1050	.1366	.1683	.2000	.2317	.2634	.2951	.3267	.3584	60	22.8125
6	.0119	.0436	.0752	.1069	.1386	.1703	.2020	.2337	.2654	.2970	.3287	.3604	70	26.6146
7	.0139	.0455	.0772	.1089	.1406	.1723	.2040	.2356	.2673	.2990	.3307	.3624	80	30.4167
8	.0158	.0475	.0792	.1109	.1426	.1743	.2059	.2376	.2693	.3010	.3327	.3644	90	34.2188
9	.0178	.0495	.0812	.1129	.1446	.1762	.2079	.2396	.2713	.3030	.3347	.3663	100	38.0208
10	.0198	.0515	.0832	.1149	.1465	.1782	.2099	.2416	.2733	.3050	.3366	.3683		
11	.0218	.0535	.0852	.1168	.1485	.1802	.2119	.2436	.2753	.3069	.3386	.3703		
12	.0238	.0554	.0871	.1188	.1505	.1822	.2139	.2456	.2772	.3089	.3406	.3723		
13	.0257	.0574	.0891	.1208	.1525	.1842	.2158	.2475	.2792	.3109	.3426	.3743		
14	.0277	.0594	.0911	.1228	.1545	.1861	.2178	.2495	.2812	.3129	.3446	.3762		
15	.0297	.0614	.0931	.1248	.1564	.1881	.2198	.2515	.2832	.3149	.3465	.3782		

Hypotenuse

0	.0000	.0892	.1783	.2675	.3566	.4458	.5349	.6241	.7132	.8024	.8915	.9807	10	10.6984
1	.0056	.0947	.1839	.2730	.3622	.4513	.5405	.6296	.7188	.8080	.8971	.9863	20	21.3968
2	.0111	.1003	.1895	.2786	.3678	.4569	.5461	.6352	.7244	.8135	.9027	.9918	30	32.0952
3	.0167	.1059	.1950	.2842	.3733	.4625	.5516	.6408	.7299	.8191	.9082	.9974	40	42.7936
4	.0223	.1114	.2006	.2897	.3789	.4681	.5572	.6464	.7355	.8247	.9138	1.0030	50	53.4920
5	.0279	.1170	.2062	.2953	.3845	.4736	.5628	.6519	.7411	.8302	.9194	1.0085	60	64.1904
6	.0334	.1226	.2117	.3009	.3900	.4792	.5684	.6575	.7467	.8358	.9250	1.0141	70	74.8888
7	.0390	.1282	.2173	.3065	.3956	.4848	.5739	.6631	.7522	.8414	.9305	1.0197	80	85.5872
8	.0446	.1337	.2229	.3120	.4012	.4903	.5795	.6687	.7578	.8470	.9361	1.0253	90	96.2856
9	.0501	.1393	.2285	.3176	.4068	.4959	.5851	.6742	.7634	.8525	.9417	1.0308	100	106.9840
10	.0557	.1449	.2340	.3232	.4123	.5015	.5906	.6798	.7689	.8581	.9473	1.0364		
11	.0613	.1504	.2396	.3288	.4179	.5071	.5962	.6854	.7745	.8637	.9528	1.0420		
12	.0669	.1560	.2452	.3343	.4235	.5126	.6018	.6909	.7801	.8692	.9584	1.0476		
13	.0724	.1616	.2507	.3399	.4291	.5182	.6074	.6965	.7857	.8748	.9640	1.0531		
14	.0780	.1672	.2563	.3455	.4346	.5238	.6129	.7021	.7912	.8804	.9695	1.0587		
15	.0836	.1727	.2619	.3510	.4402	.5293	.6185	.7077	.7968	.8860	.9751	1.0643		

Equivalent Angle $21^{\circ} 04' 39''$

Altitude

Batter $4\frac{5}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0321	.0642	.0964	.1285	.1606	.1927	.2248	.2569	.2891	.3212	.3533	10 3.8542
1	.0020	.0341	.0662	.0984	.1305	.1626	.1947	.2268	.2590	.2911	.3232	.3553	20 7.7083
2	.0040	.0361	.0683	.1004	.1325	.1646	.1967	.2288	.2610	.2931	.3252	.3573	30 11.5625
3	.0060	.0381	.0703	.1024	.1345	.1666	.1987	.2308	.2630	.2951	.3272	.3593	40 15.4167
4	.0080	.0401	.0723	.1044	.1365	.1686	.2007	.2329	.2650	.2971	.3292	.3613	50 19.2708
5	.0100	.0422	.0743	.1064	.1385	.1706	.2027	.2349	.2670	.2991	.3312	.3633	60 23.1250
6	.0120	.0442	.0763	.1084	.1405	.1726	.2048	.2369	.2690	.3011	.3332	.3653	70 26.9792
7	.0141	.0462	.0783	.1104	.1425	.1746	.2068	.2389	.2710	.3031	.3352	.3674	80 30.8333
8	.0161	.0482	.0803	.1124	.1445	.1766	.2088	.2409	.2730	.3051	.3372	.3694	90 34.6875
9	.0181	.0502	.0823	.1144	.1465	.1787	.2108	.2429	.2750	.3071	.3392	.3714	100 38.5417
10	.0201	.0522	.0843	.1164	.1485	.1807	.2128	.2449	.2770	.3091	.3413	.3734	
11	.0221	.0542	.0863	.1184	.1506	.1827	.2148	.2469	.2790	.3111	.3433	.3754	
12	.0241	.0562	.0883	.1204	.1526	.1847	.2168	.2489	.2810	.3132	.3453	.3774	
13	.0261	.0582	.0903	.1225	.1546	.1867	.2188	.2509	.2830	.3152	.3473	.3794	
14	.0281	.0602	.0923	.1245	.1566	.1887	.2208	.2529	.2850	.3172	.3493	.3814	
15	.0301	.0622	.0943	.1265	.1586	.1907	.2228	.2549	.2871	.3192	.3513	.3834	

Hypotenuse

0	.0000	.0893	.1786	.2679	.3572	.4465	.5359	.6252	.7145	.8038	.8931	.9824	10 10.7170
1	.0056	.0949	.1842	.2735	.3628	.4521	.5414	.6307	.7201	.8094	.8987	.9880	20 21.4340
2	.0112	.1005	.1898	.2791	.3684	.4577	.5470	.6363	.7256	.8149	.9042	.9936	30 32.1511
3	.0167	.1061	.1954	.2847	.3740	.4633	.5526	.6419	.7312	.8205	.9098	.9991	40 42.8681
4	.0223	.1116	.2009	.2903	.3796	.4689	.5582	.6475	.7368	.8261	.9154	1.0047	50 53.5851
5	.0279	.1172	.2065	.2958	.3851	.4745	.5638	.6531	.7424	.8317	.9210	1.0103	60 64.3021
6	.0335	.1228	.2121	.3014	.3907	.4800	.5693	.6587	.7480	.8373	.9266	1.0159	70 75.0192
7	.0391	.1284	.2177	.3070	.3963	.4856	.5749	.6642	.7535	.8428	.9322	1.0215	80 85.7362
8	.0447	.1340	.2233	.3126	.4019	.4912	.5805	.6698	.7591	.8484	.9377	1.0270	90 96.4532
9	.0502	.1395	.2289	.3182	.4075	.4968	.5861	.6754	.7647	.8540	.9433	1.0326	100 107.1702
10	.0558	.1451	.2344	.3237	.4131	.5024	.5917	.6810	.7703	.8596	.9489	1.0382	
11	.0614	.1507	.2400	.3293	.4186	.5079	.5973	.6866	.7759	.8652	.9545	1.0438	
12	.0670	.1563	.2456	.3349	.4242	.5135	.6028	.6921	.7814	.8708	.9601	1.0494	
13	.0726	.1619	.2512	.3405	.4298	.5191	.6084	.6977	.7870	.8763	.9656	1.0550	
14	.0781	.1675	.2568	.3461	.4354	.5247	.6140	.7033	.7926	.8819	.9712	1.0605	
15	.0837	.1730	.2623	.3517	.4410	.5303	.6196	.7089	.7982	.8875	.9768	1.0661	

Equivalent Angle 21° 20' 13"						Altitude					Batter 4 ¹¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0326	.0651	.0977	.1302	.1628	.1953	.2279	.2604	.2930	.3255	.3581	10	3.9063
1	.0020	.0346	.0671	.0997	.1322	.1648	.1973	.2299	.2625	.2950	.3276	.3601	20	7.8125
2	.0041	.0366	.0692	.1017	.1343	.1668	.1994	.2319	.2645	.2970	.3296	.3621	30	11.7188
3	.0061	.0387	.0712	.1038	.1363	.1689	.2014	.2340	.2665	.2991	.3316	.3642	40	15.6250
4	.0081	.0407	.0732	.1058	.1383	.1709	.2035	.2360	.2686	.3011	.3337	.3662	50	19.5313
5	.0102	.0427	.0753	.1078	.1404	.1729	.2055	.2380	.2706	.3031	.3357	.3682	60	23.4375
6	.0122	.0448	.0773	.1099	.1424	.1750	.2075	.2401	.2726	.3052	.3377	.3703	70	27.3438
7	.0142	.0468	.0793	.1119	.1444	.1770	.2096	.2421	.2747	.3072	.3398	.3723	80	31.2500
8	.0163	.0488	.0814	.1139	.1465	.1790	.2116	.2441	.2767	.3092	.3418	.3743	90	35.1563
9	.0183	.0509	.0834	.1160	.1485	.1811	.2136	.2462	.2787	.3113	.3438	.3764	100	39.0625
10	.0203	.0529	.0854	.1180	.1406	.1831	.2157	.2482	.2808	.3133	.3459	.3784		
11	.0224	.0549	.0875	.1200	.1526	.1851	.2177	.2502	.2828	.3153	.3479	.3805		
12	.0244	.0570	.0895	.1221	.1546	.1872	.2197	.2523	.2848	.3174	.3499	.3825		
13	.0264	.0590	.0916	.1241	.1567	.1892	.2218	.2543	.2869	.3194	.3520	.3845		
14	.0285	.0610	.0936	.1261	.1587	.1912	.2238	.2563	.2889	.3215	.3540	.3866		
15	.0305	.0631	.0956	.1282	.1607	.1933	.2258	.2584	.2909	.3235	.3560	.3886		

Hypotenuse

0	.0000	.0895	.1789	.2684	.3579	.4473	.5368	.6263	.7157	.8052	.8947	.9841	10	10.7359
1	.0056	.0951	.1845	.2740	.3635	.4529	.5424	.6319	.7213	.8108	.9002	.9897	20	21.4717
2	.0112	.1006	.1901	.2796	.3690	.4585	.5480	.6374	.7269	.8164	.9058	.9953	30	32.2076
3	.0168	.1062	.1957	.2852	.3746	.4641	.5536	.6430	.7325	.8220	.9114	1.0009	40	42.9435
4	.0224	.1118	.2013	.2908	.3802	.4697	.5592	.6486	.7381	.8276	.9170	1.0065	50	53.6793
5	.0280	.1174	.2069	.2964	.3858	.4753	.5648	.6542	.7437	.8331	.9226	1.0121	60	64.4152
6	.0335	.1230	.2125	.3019	.3914	.4809	.5703	.6598	.7493	.8387	.9282	1.0177	70	75.1511
7	.0391	.1286	.2181	.3075	.3970	.4865	.5759	.6654	.7549	.8443	.9338	1.0233	80	85.8869
8	.0447	.1342	.2237	.3131	.4026	.4921	.5815	.6710	.7605	.8499	.9394	1.0289	90	96.6228
9	.0503	.1398	.2293	.3187	.4082	.4977	.5871	.6766	.7660	.8555	.9450	1.0344	100	107.3586
10	.0559	.1454	.2348	.3243	.4138	.5032	.5927	.6822	.7716	.8611	.9506	1.0400		
11	.0615	.1510	.2404	.3299	.4194	.5088	.5983	.6878	.7772	.8667	.9562	1.0456		
12	.0671	.1566	.2460	.3355	.4250	.5144	.6039	.6934	.7828	.8723	.9618	1.0512		
13	.0727	.1622	.2516	.3411	.4306	.5200	.6095	.6989	.7884	.8779	.9673	1.0568		
14	.0783	.1677	.2572	.3467	.4361	.5256	.6151	.7045	.7940	.8835	.9729	1.0624		
15	.0839	.1733	.2628	.3523	.4417	.5312	.6207	.7101	.7996	.8891	.9785	1.0680		

Equivalent Angle $21^{\circ} 35' 43''$					Altitude					Batter $4\frac{3}{4}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0330	.0660	.0990	.1319	.1649	.1979	.2309	.2639	.2969	.3299	.3628	10	3.9583
1	.0021	.0350	.0680	.1010	.1340	.1670	.2000	.2330	.2660	.2989	.3319	.3649	20	7.9167
2	.0041	.0371	.0701	.1031	.1361	.1691	.2020	.2350	.2680	.3010	.3340	.3670	30	11.8750
3	.0062	.0392	.0722	.1051	.1381	.1711	.2041	.2371	.2701	.3031	.3360	.3690	40	15.8333
4	.0082	.0412	.0742	.1072	.1402	.1732	.2062	.2391	.2721	.3051	.3381	.3711	50	19.7917
5	.0103	.0433	.0763	.1093	.1423	.1752	.2082	.2412	.2742	.3072	.3402	.3732	60	23.7500
6	.0124	.0454	.0783	.1113	.1443	.1773	.2103	.2433	.2763	.3092	.3422	.3752	70	27.7083
7	.0144	.0474	.0804	.1134	.1464	.1794	.2123	.2453	.2783	.3113	.3443	.3773	80	31.6667
8	.0165	.0495	.0825	.1155	.1484	.1814	.2144	.2474	.2804	.3134	.3464	.3793	90	35.6250
9	.0186	.0515	.0845	.1175	.1505	.1835	.2165	.2495	.2824	.3154	.3484	.3814	100	39.5833
10	.0206	.0536	.0866	.1196	.1526	.1855	.2185	.2515	.2845	.3175	.3505	.3835		
11	.0227	.0557	.0887	.1216	.1546	.1876	.2206	.2536	.2866	.3196	.3525	.3855		
12	.0247	.0577	.0907	.1237	.1567	.1897	.2227	.2556	.2886	.3216	.3546	.3876		
13	.0268	.0598	.0928	.1258	.1587	.1917	.2247	.2577	.2907	.3237	.3567	.3896		
14	.0289	.0618	.0948	.1278	.1608	.1938	.2268	.2598	.2928	.3257	.3587	.3917		
15	.0309	.0639	.0969	.1299	.1629	.1959	.2288	.2618	.2948	.3278	.3608	.3938		

Hypotenuse

0	.0000	.0896	.1792	.2689	.3585	.4481	.5377	.6274	.7170	.8066	.8962	.9859	10	10.7549
1	.0056	.0952	.1848	.2745	.3641	.4537	.5433	.6330	.7226	.8122	.9018	.9915	20	21.5098
2	.0112	.1008	.1905	.2801	.3697	.4593	.5489	.6386	.7282	.8178	.9074	.9971	30	32.2648
3	.0168	.1064	.1961	.2857	.3753	.4649	.5546	.6442	.7338	.8234	.9130	1.0027	40	43.0197
4	.0224	.1120	.2017	.2913	.3809	.4705	.5602	.6498	.7394	.8290	.9186	1.0083	50	53.7746
5	.0280	.1176	.2073	.2969	.3865	.4761	.5658	.6554	.7450	.8346	.9243	1.0139	60	64.5295
6	.0336	.1232	.2129	.3025	.3921	.4817	.5714	.6610	.7506	.8402	.9299	1.0195	70	75.2845
7	.0392	.1288	.2185	.3081	.3977	.4873	.5770	.6666	.7562	.8458	.9355	1.0251	80	86.0394
8	.0448	.1344	.2241	.3137	.4033	.4929	.5826	.6722	.7618	.8514	.9411	1.0307	90	96.7943
9	.0504	.1400	.2297	.3193	.4089	.4985	.5882	.6778	.7674	.8570	.9467	1.0363	100	107.5492
10	.0560	.1456	.2353	.3249	.4145	.5041	.5938	.6834	.7730	.8626	.9523	1.0419		
11	.0616	.1512	.2409	.3305	.4201	.5097	.5994	.6890	.7786	.8682	.9579	1.0475		
12	.0672	.1568	.2465	.3361	.4257	.5153	.6050	.6946	.7842	.8738	.9635	1.0531		
13	.0728	.1624	.2521	.3417	.4313	.5209	.6106	.7002	.7898	.8794	.9691	1.0587		
14	.0784	.1680	.2577	.3473	.4369	.5265	.6162	.7058	.7954	.8850	.9747	1.0643		
15	.0840	.1736	.2633	.3529	.4425	.5321	.6218	.7114	.8010	.8906	.9803	1.0699		

Equivalent Angle 21° 51' 10"						Altitude					Batter 4 ¹³ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0334	.0668	.1003	.1337	.1671	.2005	.2339	.2674	.3008	.3342	.3676	10	4.0104
1	.0021	.0355	.0689	.1023	.1358	.1692	.2026	.2360	.2694	.3029	.3363	.3697	20	8.0208
2	.0042	.0376	.0710	.1044	.1379	.1713	.2047	.2381	.2715	.3050	.3384	.3718	30	12.0313
3	.0063	.0397	.0731	.1065	.1399	.1734	.2068	.2402	.2736	.3070	.3405	.3739	40	16.0417
4	.0084	.0418	.0752	.1086	.1420	.1755	.2089	.2423	.2757	.3091	.3426	.3760	50	20.0521
5	.0104	.0439	.0773	.1107	.1441	.1775	.2110	.2444	.2778	.3112	.3446	.3781	60	24.0625
6	.0125	.0460	.0794	.1128	.1462	.1796	.2131	.2465	.2799	.3133	.3467	.3802	70	28.0729
7	.0146	.0480	.0815	.1149	.1483	.1817	.2151	.2486	.2820	.3154	.3488	.3822	80	32.0833
8	.0167	.0501	.0836	.1170	.1504	.1838	.2172	.2507	.2841	.3175	.3509	.3843	90	36.0938
9	.0188	.0522	.0856	.1191	.1525	.1859	.2193	.2527	.2862	.3196	.3530	.3864	100	40.1042
10	.0209	.0543	.0877	.1211	.1546	.1880	.2214	.2548	.2882	.3217	.3551	.3885		
11	.0230	.0564	.0898	.1232	.1567	.1901	.2235	.2569	.2903	.3238	.3572	.3906		
12	.0251	.0585	.0919	.1253	.1587	.1922	.2256	.2590	.2924	.3258	.3593	.3927		
13	.0272	.0606	.0940	.1274	.1608	.1943	.2277	.2611	.2945	.3279	.3614	.3948		
14	.0292	.0627	.0961	.1295	.1629	.1963	.2298	.2632	.2966	.3300	.3634	.3969		
15	.0313	.0648	.0982	.1316	.1650	.1984	.2319	.2653	.2987	.3321	.3655	.3990		

Hypotenuse

0	.0000	.0898	.1796	.2694	.3591	.4489	.5387	.6285	.7183	.8081	.8979	.9876	10	10.7742
1	.0056	.0954	.1852	.2750	.3648	.4545	.5443	.6341	.7239	.8137	.9035	.9932	20	21.5484
2	.0112	.1010	.1908	.2806	.3704	.4601	.5499	.6397	.7295	.8193	.9091	.9989	30	32.3226
3	.0168	.1066	.1964	.2862	.3760	.4658	.5555	.6453	.7351	.8249	.9147	1.0045	40	43.0968
4	.0224	.1122	.2020	.2918	.3816	.4714	.5612	.6509	.7407	.8305	.9203	1.0101	50	53.8710
5	.0281	.1178	.2076	.2974	.3872	.4770	.5668	.6566	.7463	.8361	.9259	1.0157	60	64.6452
6	.0337	.1235	.2132	.3030	.3928	.4826	.5724	.6622	.7519	.8417	.9313	1.0213	70	75.4194
7	.0393	.1291	.2189	.3086	.3984	.4882	.5780	.6678	.7576	.8473	.9371	1.0269	80	86.1936
8	.0449	.1347	.2245	.3142	.4040	.4938	.5836	.6734	.7632	.8530	.9427	1.0325	90	96.9678
9	.0505	.1403	.2301	.3199	.4096	.4994	.5892	.6790	.7688	.8586	.9484	1.0381	100	107.7420
10	.0561	.1459	.2357	.3255	.4153	.5050	.5948	.6846	.7744	.8642	.9540	1.0438		
11	.0617	.1515	.2413	.3311	.4209	.5107	.6004	.6902	.7800	.8698	.9596	1.0494		
12	.0673	.1571	.2469	.3367	.4265	.5163	.6060	.6958	.7856	.8754	.9652	1.0550		
13	.0730	.1627	.2525	.3423	.4321	.5219	.6117	.7014	.7912	.8810	.9708	1.0606		
14	.0786	.1683	.2581	.3479	.4377	.5275	.6173	.7071	.7968	.8866	.9764	1.0662		
15	.0842	.1740	.2637	.3535	.4433	.5331	.6229	.7127	.8025	.8922	.9820	1.0718		

Equivalent Angle 22° 06' 33"

Altitude

Batter 4 $\frac{7}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0339	.0677	.1016	.1354	.1693	.2031	.2370	.2708	.3047	.3385	.3724	10	4.0625
1	.0021	.0360	.0698	.1037	.1375	.1714	.2052	.2391	.2729	.3068	.3407	.3745	20	8.1250
2	.0042	.0381	.0719	.1058	.1396	.1735	.2074	.2412	.2751	.3089	.3428	.3766	30	12.1875
3	.0063	.0402	.0741	.1079	.1418	.1756	.2095	.2433	.2772	.3110	.3449	.3787	40	16.2500
4	.0085	.0423	.0762	.1100	.1439	.1777	.2116	.2454	.2793	.3132	.3470	.3809	50	20.3125
5	.0106	.0444	.0783	.1121	.1460	.1799	.2137	.2476	.2814	.3153	.3491	.3830	60	24.3750
6	.0127	.0465	.0804	.1143	.1481	.1820	.2158	.2497	.2835	.3174	.3512	.3851	70	28.4375
7	.0148	.0487	.0825	.1164	.1502	.1841	.2179	.2518	.2856	.3195	.3534	.3872	80	32.5000
8	.0169	.0508	.0846	.1185	.1523	.1862	.2201	.2539	.2878	.3216	.3555	.3893	90	36.5625
9	.0190	.0529	.0868	.1206	.1545	.1883	.2222	.2560	.2899	.3237	.3576	.3914	100	40.6250
10	.0212	.0550	.0889	.1227	.1566	.1904	.2243	.2581	.2920	.3258	.3597	.3936		
11	.0233	.0571	.0910	.1248	.1587	.1925	.2264	.2603	.2941	.3280	.3618	.3957		
12	.0254	.0592	.0931	.1270	.1608	.1947	.2285	.2624	.2962	.3301	.3639	.3978		
13	.0275	.0614	.0952	.1291	.1629	.1968	.2306	.2645	.2983	.3322	.3660	.3999		
14	.0296	.0635	.0973	.1312	.1650	.1989	.2327	.2666	.3005	.3343	.3682	.4020		
15	.0317	.0656	.0994	.1333	.1672	.2010	.2349	.2687	.3026	.3364	.3703	.4041		

Hypotenuse

0	.0000	.0899	.1799	.2698	.3598	.4497	.5397	.6296	.7196	.8095	.8995	.9894	10	10.7937
1	.0056	.0956	.1855	.2755	.3654	.4554	.5453	.6353	.7252	.8151	.9051	.9950	20	21.5874
2	.0112	.1012	.1911	.2811	.3710	.4610	.5509	.6409	.7308	.8208	.9107	1.0007	30	32.3811
3	.0169	.1068	.1968	.2867	.3767	.4666	.5566	.6465	.7364	.8264	.9163	1.0063	40	43.1748
4	.0225	.1124	.2024	.2923	.3823	.4722	.5622	.6521	.7421	.8320	.9220	1.0119	50	53.9685
5	.0281	.1181	.2080	.2980	.3879	.4778	.5678	.6577	.7477	.8376	.9276	1.0175	60	64.7622
6	.0337	.1237	.2136	.3036	.3935	.4835	.5734	.6634	.7533	.8433	.9332	1.0232	70	75.5559
7	.0394	.1293	.2192	.3092	.3991	.4891	.5790	.6690	.7589	.8489	.9388	1.0288	80	86.3496
8	.0450	.1349	.2249	.3148	.4048	.4947	.5847	.6746	.7646	.8545	.9444	1.0344	90	97.1433
9	.0506	.1405	.2305	.3204	.4104	.5003	.5903	.6802	.7702	.8601	.9501	1.0400	100	107.9370
10	.0562	.1462	.2361	.3261	.4160	.5060	.5959	.6858	.7758	.8657	.9557	1.0456		
11	.0618	.1518	.2417	.3317	.4216	.5116	.6015	.6915	.7814	.8714	.9613	1.0513		
12	.0675	.1574	.2474	.3373	.4272	.5172	.6071	.6971	.7870	.8770	.9669	1.0569		
13	.0731	.1630	.2530	.3429	.4329	.5228	.6128	.7027	.7927	.8826	.9726	1.0625		
14	.0787	.1687	.2586	.3485	.4385	.5284	.6184	.7083	.7983	.8882	.9782	1.0681		
15	.0843	.1743	.2642	.3542	.4441	.5341	.6240	.7140	.8039	.8939	.9838	1.0737		

Equivalent Angle 22° 21' 54"						Altitude					Batter 4 ¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0343	.0686	.1029	.1372	.1714	.2057	.2400	.2743	.3086	.3429	.3772	10	4.1146
1	.0021	.0364	.0707	.1050	.1393	.1736	.2079	.2422	.2764	.3107	.3450	.3793	20	8.2292
2	.0043	.0386	.0729	.1072	.1414	.1757	.2100	.2443	.2786	.3129	.3472	.3815	30	12.3438
3	.0064	.0407	.0750	.1093	.1436	.1779	.2122	.2464	.2807	.3150	.3493	.3836	40	16.4583
4	.0086	.0429	.0771	.1114	.1457	.1800	.2143	.2486	.2829	.3172	.3515	.3857	50	20.5729
5	.0107	.0450	.0793	.1136	.1479	.1822	.2164	.2507	.2850	.3193	.3536	.3879	60	24.6875
6	.0129	.0471	.0814	.1157	.1500	.1843	.2186	.2529	.2872	.3215	.3557	.3900	70	28.8021
7	.0150	.0493	.0836	.1179	.1522	.1864	.2207	.2550	.2893	.3236	.3579	.3922	80	32.9167
8	.0171	.0514	.0857	.1200	.1543	.1886	.2229	.2572	.2914	.3257	.3600	.3943	90	37.0313
9	.0193	.0536	.0879	.1222	.1564	.1907	.2250	.2593	.2936	.3279	.3622	.3965	100	41.1458
10	.0214	.0557	.0900	.1243	.1586	.1929	.2272	.2614	.2957	.3300	.3643	.3986		
11	.0236	.0579	.0921	.1264	.1607	.1950	.2293	.2636	.2979	.3322	.3665	.4007		
12	.0257	.0600	.0943	.1286	.1629	.1972	.2314	.2657	.3000	.3343	.3686	.4029		
13	.0279	.0621	.0964	.1307	.1650	.1993	.2336	.2679	.3022	.3365	.3707	.4050		
14	.0300	.0643	.0986	.1329	.1672	.2014	.2357	.2700	.3043	.3386	.3729	.4072		
15	.0321	.0664	.1007	.1350	.1693	.2036	.2379	.2722	.3065	.3407	.3750	.4093		

Hypotenuse

0	.0000	.0901	.1802	.2703	.3604	.4506	.5407	.6308	.7209	.8110	.9011	.9912	10	10.8134
1	.0056	.0957	.1859	.2760	.3661	.4562	.5463	.6364	.7265	.8166	.9067	.9969	20	21.6268
2	.0113	.1014	.1915	.2816	.3717	.4618	.5519	.6420	.7322	.8223	.9124	1.0025	30	32.4402
3	.0169	.1070	.1971	.2872	.3773	.4675	.5576	.6477	.7378	.8279	.9180	1.0081	40	43.2536
4	.0225	.1126	.2028	.2929	.3830	.4731	.5632	.6533	.7434	.8335	.9236	1.0138	50	54.0670
5	.0282	.1183	.2084	.2985	.3886	.4787	.5688	.6589	.7491	.8392	.9293	1.0194	60	64.8804
6	.0338	.1239	.2140	.3041	.3942	.4844	.5745	.6646	.7547	.8448	.9349	1.0250	70	75.6939
7	.0394	.1295	.2196	.3098	.3999	.4900	.5801	.6702	.7603	.8504	.9405	1.0307	80	86.5073
8	.0451	.1352	.2253	.3154	.4055	.4956	.5857	.6758	.7659	.8567	.9462	1.0363	90	97.3207
9	.0507	.1408	.2309	.3210	.4111	.5012	.5914	.6815	.7716	.8617	.9518	1.0419	100	108.1341
10	.0563	.1464	.2365	.3267	.4168	.5069	.5970	.6871	.7772	.8673	.9574	1.0475		
11	.0620	.1521	.2422	.3323	.4224	.5125	.6026	.6927	.7828	.8730	.9631	1.0532		
12	.0676	.1577	.2478	.3379	.4280	.5181	.6083	.6984	.7885	.8786	.9687	1.0588		
13	.0732	.1633	.2534	.3436	.4337	.5238	.6139	.7040	.7941	.8842	.9743	1.0644		
14	.0788	.1690	.2591	.3492	.4393	.5294	.6195	.7096	.7997	.8899	.9800	1.0701		
15	.0845	.1746	.2647	.3548	.4449	.5350	.6252	.7153	.8054	.8955	.9856	1.0757		

Equivalent Angle 22° 37' 10"

Altitude

Batter 5 to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0347	.0694	.1042	.1389	.1736	.2083	.2431	.2778	.3125	.3472	.3819	10	4.1667
1	.0022	.0369	.0716	.1063	.1411	.1758	.2105	.2452	.2799	.3147	.3494	.3841	20	8.3333
2	.0043	.0391	.0738	.1085	.1432	.1780	.2127	.2474	.2821	.3168	.3516	.3863	30	12.5000
3	.0065	.0412	.0760	.1107	.1454	.1801	.2148	.2496	.2843	.3190	.3537	.3885	40	16.6667
4	.0087	.0434	.0781	.1128	.1476	.1823	.2170	.2517	.2865	.3212	.3559	.3906	50	20.8333
5	.0109	.0456	.0803	.1150	.1497	.1845	.2192	.2539	.2886	.3234	.3581	.3928	60	25.0000
6	.0130	.0477	.0825	.1172	.1519	.1866	.2214	.2561	.2908	.3255	.3602	.3950	70	29.1667
7	.0152	.0499	.0846	.1194	.1541	.1888	.2235	.2582	.2930	.3277	.3624	.3971	80	33.3333
8	.0174	.0521	.0868	.1215	.1563	.1910	.2257	.2604	.2951	.3299	.3646	.3993	90	37.5000
9	.0195	.0543	.0890	.1237	.1584	.1931	.2279	.2626	.2973	.3320	.3668	.4015	100	41.6667
10	.0217	.0564	.0911	.1259	.1606	.1953	.2300	.2648	.2995	.3342	.3689	.4036		
11	.0239	.0586	.0933	.1280	.1628	.1975	.2322	.2669	.3016	.3364	.3711	.4058		
12	.0260	.0608	.0955	.1302	.1649	.1997	.2344	.2691	.3038	.3385	.3733	.4080		
13	.0282	.0629	.0977	.1324	.1671	.2018	.2365	.2713	.3060	.3407	.3754	.4102		
14	.0304	.0651	.0998	.1345	.1693	.2040	.2387	.2734	.3082	.3429	.3776	.4123		
15	.0326	.0673	.1020	.1367	.1714	.2062	.2409	.2756	.3103	.3451	.3798	.4145		

Hypothenuse

0	.0000	.0903	.1806	.2708	.3611	.4514	.5417	.6319	.7222	.8125	.9028	.9931	10	10.8333
1	.0056	.0959	.1862	.2765	.3668	.4570	.5473	.6376	.7279	.8181	.9084	.9987	20	21.6667
2	.0113	.1016	.1918	.2821	.3724	.4627	.5530	.6432	.7335	.8238	.9141	1.0043	30	32.5000
3	.0169	.1072	.1975	.2878	.3780	.4683	.5586	.6489	.7391	.8294	.9197	1.0100	40	43.3333
4	.0226	.1128	.2031	.2934	.3837	.4740	.5642	.6545	.7448	.8351	.9253	1.0156	50	54.1667
5	.0282	.1185	.2088	.2990	.3893	.4796	.5699	.6602	.7504	.8407	.9310	1.0213	60	65.0000
6	.0339	.1241	.2144	.3047	.3950	.4852	.5755	.6658	.7561	.8464	.9366	1.0269	70	75.8333
7	.0395	.1298	.2201	.3103	.4006	.4909	.5812	.6714	.7617	.8520	.9423	1.0326	80	86.6667
8	.0451	.1354	.2257	.3160	.4062	.4965	.5868	.6771	.7674	.8576	.9479	1.0382	90	97.5000
9	.0508	.1411	.2313	.3216	.4119	.5022	.5924	.6827	.7730	.8633	.9536	1.0438	100	108.3333
10	.0564	.1467	.2370	.3273	.4175	.5078	.5981	.6884	.7786	.8689	.9592	1.0495		
11	.0621	.1523	.2426	.3329	.4232	.5135	.6037	.6940	.7843	.8746	.9648	1.0551		
12	.0677	.1580	.2483	.3385	.4288	.5191	.6094	.6997	.7899	.8802	.9705	1.0608		
13	.0734	.1636	.2539	.3442	.4345	.5247	.6150	.7053	.7956	.8859	.9761	1.0664		
14	.0790	.1693	.2595	.3498	.4401	.5304	.6207	.7109	.8012	.8915	.9818	1.0720		
15	.0846	.1749	.2652	.3555	.4457	.5360	.6263	.7166	.8069	.8971	.9874	1.0777		

Equivalent Angle 22° 52' 25"						Altitude					Batter 5 ¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0352	.0703	.1055	.1406	.1758	.2109	.2461	.2813	.3164	.3516	.3867	10	4.2188
1	.0022	.0374	.0725	.1077	.1428	.1780	.2131	.2483	.2834	.3186	.3538	.3889	20	8.4375
2	.0044	.0396	.0747	.1099	.1450	.1802	.2153	.2505	.2856	.3208	.3560	.3911	30	12.6563
3	.0066	.0417	.0769	.1121	.1472	.1824	.2175	.2527	.2878	.3230	.3582	.3933	40	16.8750
4	.0088	.0439	.0791	.1143	.1494	.1846	.2197	.2549	.2900	.3252	.3604	.3955	50	21.0938
5	.0110	.0461	.0813	.1165	.1516	.1868	.2219	.2571	.2922	.3274	.3625	.3977	60	25.3125
6	.0132	.0483	.0835	.1187	.1538	.1890	.2241	.2593	.2944	.3296	.3647	.3999	70	29.5313
7	.0154	.0505	.0857	.1208	.1560	.1912	.2263	.2615	.2966	.3318	.3669	.4021	80	33.7500
8	.0176	.0527	.0879	.1230	.1582	.1934	.2285	.2637	.2988	.3340	.3691	.4043	90	37.9688
9	.0198	.0549	.0901	.1252	.1604	.1956	.2307	.2659	.3010	.3362	.3713	.4065	100	42.1875
10	.0220	.0571	.0923	.1274	.1626	.1978	.2329	.2681	.3032	.3384	.3735	.4087		
11	.0242	.0593	.0945	.1296	.1648	.2000	.2351	.2703	.3054	.3406	.3757	.4109		
12	.0264	.0615	.0967	.1318	.1670	.2021	.2373	.2725	.3076	.3428	.3779	.4131		
13	.0286	.0637	.0989	.1340	.1692	.2043	.2395	.2747	.3098	.3450	.3801	.4153		
14	.0308	.0659	.1011	.1362	.1714	.2065	.2417	.2769	.3120	.3472	.3823	.4175		
15	.0330	.0681	.1033	.1384	.1736	.2087	.2439	.2791	.3142	.3494	.3845	.4197		

Hypotenuse														
0	.0000	.0904	.1809	.2713	.3618	.4522	.5427	.6331	.7236	.8140	.9045	.9949	10	10.8535
1	.0057	.0961	.1865	.2770	.3674	.4579	.5483	.6388	.7292	.8197	.9101	1.0006	20	21.7069
2	.0113	.1018	.1922	.2826	.3731	.4635	.5540	.6444	.7349	.8253	.9158	1.0062	30	32.5604
3	.0170	.1074	.1978	.2883	.3787	.4692	.5596	.6501	.7405	.8310	.9214	1.0119	40	43.4139
4	.0226	.1131	.2035	.2939	.3844	.4748	.5653	.6557	.7462	.8366	.9271	1.0175	50	54.2674
5	.0283	.1187	.2092	.2996	.3900	.4805	.5709	.6614	.7518	.8423	.9327	1.0232	60	65.1208
6	.0339	.1244	.2148	.3053	.3957	.4861	.5766	.6670	.7575	.8479	.9384	1.0288	70	75.9743
7	.0396	.1300	.2205	.3109	.4014	.4918	.5822	.6727	.7631	.8536	.9440	1.0345	80	86.8278
8	.0452	.1357	.2261	.3166	.4070	.4975	.5879	.6783	.7688	.8592	.9497	1.0401	90	97.6812
9	.0509	.1413	.2318	.3222	.4127	.5031	.5935	.6840	.7744	.8649	.9553	1.0458	100	108.5347
10	.0565	.1470	.2374	.3279	.4183	.5088	.5992	.6896	.7801	.8705	.9610	1.0514		
11	.0622	.1526	.2431	.3335	.4240	.5144	.6049	.6953	.7857	.8762	.9666	1.0571		
12	.0678	.1583	.2487	.3392	.4296	.5201	.6105	.7010	.7914	.8818	.9723	1.0627		
13	.0735	.1639	.2544	.3448	.4353	.5257	.6162	.7066	.7971	.8875	.9779	1.0684		
14	.0791	.1696	.2600	.3505	.4409	.5314	.6218	.7123	.8027	.8932	.9836	1.0740		
15	.0848	.1752	.2657	.3561	.4466	.5370	.6275	.7179	.8084	.8988	.9892	1.0797		

Equivalent Angle $23^{\circ} 07' 36''$

Altitude

Batter $5\frac{1}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0356	.0712	.1068	.1424	.1780	.2135	.2491	.2847	.3203	.3559	.3915	10	4.2708
1	.0022	.0378	.0734	.1090	.1446	.1802	.2158	.2514	.2869	.3225	.3581	.3937	20	8.5417
2	.0044	.0400	.0756	.1112	.1468	.1824	.2180	.2536	.2892	.3248	.3604	.3959	30	12.8125
3	.0067	.0423	.0779	.1134	.1490	.1846	.2202	.2558	.2914	.3270	.3626	.3982	40	17.0833
4	.0089	.0445	.0801	.1157	.1513	.1868	.2224	.2580	.2936	.3292	.3648	.4004	50	21.3542
5	.0111	.0467	.0823	.1179	.1535	.1891	.2247	.2603	.2958	.3314	.3670	.4026	60	25.6250
6	.0133	.0489	.0845	.1201	.1557	.1913	.2269	.2625	.2981	.3337	.3692	.4048	70	29.8958
7	.0156	.0512	.0868	.1223	.1579	.1935	.2291	.2647	.3003	.3359	.3715	.4071	80	34.1667
8	.0178	.0534	.0890	.1246	.1602	.1957	.2313	.2669	.3025	.3381	.3737	.4093	90	38.4375
9	.0200	.0556	.0912	.1268	.1624	.1980	.2336	.2692	.3047	.3403	.3759	.4115	100	42.7083
10	.0222	.0578	.0934	.1290	.1646	.2002	.2358	.2714	.3070	.3426	.3781	.4137		
11	.0245	.0601	.0956	.1312	.1668	.2024	.2380	.2736	.3092	.3448	.3804	.4160		
12	.0267	.0623	.0979	.1335	.1691	.2046	.2402	.2758	.3114	.3470	.3826	.4182		
13	.0289	.0645	.1001	.1357	.1713	.2069	.2425	.2780	.3136	.3492	.3848	.4204		
14	.0311	.0667	.1023	.1379	.1735	.2091	.2447	.2803	.3159	.3515	.3870	.4226		
15	.0334	.0690	.1045	.1401	.1757	.2113	.2469	.2825	.3181	.3537	.3893	.4249		

Hypotenuse

0	.0000	.0906	.1812	.2718	.3625	.4531	.5437	.6343	.7249	.8155	.9062	.9968	10	10.8738
1	.0057	.0963	.1869	.2775	.3681	.4587	.5494	.6400	.7306	.8212	.9118	1.0024	20	21.7476
2	.0113	.1019	.1926	.2832	.3738	.4644	.5550	.6456	.7362	.8269	.9175	1.0081	30	32.6215
3	.0170	.1076	.1982	.2888	.3795	.4701	.5607	.6513	.7419	.8325	.9231	1.0138	40	43.4953
4	.0227	.1133	.2039	.2945	.3851	.4757	.5663	.6570	.7476	.8382	.9288	1.0194	50	54.3691
5	.0283	.1189	.2095	.3002	.3908	.4814	.5720	.6626	.7532	.8439	.9345	1.0251	60	65.2429
6	.0340	.1246	.2152	.3058	.3964	.4871	.5777	.6683	.7589	.8495	.9401	1.0307	70	76.1168
7	.0396	.1303	.2209	.3115	.4021	.4927	.5833	.6740	.7646	.8552	.9458	1.0364	80	86.9906
8	.0453	.1359	.2265	.3172	.4078	.4984	.5890	.6796	.7702	.8608	.9515	1.0421	90	97.8644
9	.0510	.1416	.2322	.3228	.4134	.5040	.5947	.6853	.7759	.8665	.9571	1.0477	100	108.7382
10	.0566	.1472	.2379	.3285	.4191	.5097	.6003	.6909	.7816	.8722	.9628	1.0534		
11	.0623	.1529	.2435	.3341	.4248	.5154	.6060	.6966	.7872	.8778	.9684	1.0591		
12	.0680	.1586	.2492	.3398	.4304	.5210	.6117	.7023	.7929	.8835	.9741	1.0647		
13	.0736	.1642	.2549	.3455	.4361	.5267	.6173	.7079	.7985	.8892	.9798	1.0704		
14	.0793	.1699	.2605	.3511	.4417	.5324	.6230	.7136	.8042	.8948	.9854	1.0761		
15	.0850	.1756	.2662	.3568	.4474	.5380	.6286	.7193	.8099	.9005	.9911	1.0817		

Equivalent Angle 23° 22' 43"						Altitude					Batter 5 ³ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0360	.0720	.1081	.1441	.1801	.2161	.2522	.2882	.3242	.3602	.3963	10	4.3229
1	.0023	.0383	.0743	.1103	.1463	.1824	.2184	.2544	.2904	.3265	.3625	.3985	20	8.6458
2	.0045	.0405	.0766	.1126	.1486	.1846	.2206	.2567	.2927	.3287	.3647	.4008	30	12.9688
3	.0068	.0428	.0788	.1148	.1509	.1869	.2229	.2589	.2949	.3310	.3670	.4030	40	17.2917
4	.0090	.0450	.0811	.1171	.1531	.1891	.2252	.2612	.2972	.3332	.3692	.4053	50	21.6146
5	.0113	.0473	.0833	.1193	.1554	.1914	.2274	.2634	.2995	.3355	.3715	.4075	60	25.9375
6	.0135	.0495	.0856	.1216	.1576	.1936	.2297	.2657	.3017	.3377	.3738	.4098	70	30.2604
7	.0158	.0518	.0878	.1238	.1599	.1959	.2319	.2679	.3040	.3400	.3760	.4120	80	34.5833
8	.0180	.0540	.0901	.1261	.1621	.1981	.2342	.2702	.3062	.3422	.3783	.4143	90	38.9063
9	.0203	.0563	.0923	.1283	.1644	.2004	.2364	.2724	.3085	.3445	.3805	.4165	100	43.2292
10	.0225	.0585	.0946	.1306	.1666	.2026	.2387	.2747	.3107	.3467	.3828	.4188		
11	.0248	.0608	.0968	.1328	.1689	.2049	.2409	.2769	.3130	.3490	.3850	.4210		
12	.0270	.0630	.0991	.1351	.1711	.2071	.2432	.2792	.3152	.3512	.3873	.4233		
13	.0293	.0653	.1013	.1373	.1734	.2094	.2454	.2814	.3175	.3535	.3895	.4255		
14	.0315	.0675	.1036	.1396	.1756	.2116	.2477	.2837	.3197	.3557	.3918	.4278		
15	.0338	.0698	.1058	.1418	.1779	.2139	.2499	.2859	.3220	.3580	.3940	.4300		

Hypotenuse

0	.0000	.0908	.1816	.2724	.3631	.4539	.5447	.6355	.7263	.8171	.9079	.9987	10	10.8944
1	.0057	.0965	.1872	.2780	.3688	.4596	.5504	.6412	.7320	.8228	.9135	1.0043	20	21.7888
2	.0113	.1021	.1929	.2837	.3745	.4653	.5561	.6469	.7376	.8284	.9192	1.0100	30	32.6832
3	.0170	.1078	.1986	.2894	.3802	.4710	.5617	.6525	.7433	.8341	.9249	1.0157	40	43.5775
4	.0227	.1135	.2043	.2951	.3858	.4766	.5674	.6582	.7490	.8398	.9306	1.0213	50	54.4719
5	.0284	.1192	.2099	.3007	.3915	.4823	.5731	.6639	.7547	.8454	.9362	1.0270	60	65.3663
6	.0340	.1248	.2156	.3064	.3972	.4880	.5788	.6696	.7603	.8511	.9419	1.0327	70	76.2607
7	.0397	.1305	.2213	.3121	.4029	.4937	.5844	.6752	.7660	.8568	.9476	1.0384	80	87.1551
8	.0454	.1362	.2270	.3178	.4085	.4993	.5901	.6809	.7717	.8625	.9533	1.0440	90	98.0495
9	.0511	.1419	.2326	.3234	.4142	.5050	.5958	.6866	.7774	.8681	.9589	1.0497	100	108.9438
10	.0567	.1475	.2383	.3291	.4199	.5107	.6015	.6922	.7830	.8738	.9646	1.0554		
11	.0624	.1532	.2440	.3348	.4256	.5163	.6071	.6979	.7887	.8795	.9703	1.0611		
12	.0681	.1589	.2497	.3404	.4312	.5220	.6128	.7036	.7944	.8852	.9760	1.0667		
13	.0738	.1646	.2553	.3461	.4369	.5277	.6185	.7093	.8001	.8908	.9816	1.0724		
14	.0794	.1702	.2610	.3518	.4426	.5334	.6242	.7149	.8057	.8965	.9873	1.0781		
15	.0851	.1759	.2667	.3575	.4483	.5390	.6298	.7206	.8114	.9022	.9930	1.0838		

Equivalent Angle 23° 37' 46"

Altitude

Batter 5¼ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0365	.0729	.1094	.1458	.1823	.2188	.2552	.2917	.3281	.3646	.4010	10	4.3750
1	.0023	.0387	.0752	.1117	.1481	.1846	.2210	.2575	.2939	.3304	.3669	.4033	20	8.7500
2	.0046	.0410	.0775	.1139	.1504	.1868	.2233	.2598	.2962	.3327	.3691	.4056	30	13.1250
3	.0068	.0433	.0798	.1162	.1527	.1891	.2256	.2620	.2985	.3350	.3714	.4079	40	17.5000
4	.0091	.0456	.0820	.1185	.1549	.1914	.2279	.2643	.3008	.3372	.3737	.4102	50	21.8750
5	.0114	.0479	.0843	.1208	.1572	.1937	.2301	.2666	.3031	.3395	.3760	.4124	60	26.2500
6	.0137	.0501	.0866	.1230	.1595	.1960	.2324	.2689	.3053	.3418	.3783	.4147	70	30.6250
7	.0160	.0524	.0889	.1253	.1618	.1982	.2347	.2712	.3076	.3441	.3805	.4170	80	35.0000
8	.0182	.0547	.0911	.1276	.1641	.2005	.2370	.2734	.3099	.3464	.3828	.4193	90	39.3750
9	.0205	.0570	.0934	.1299	.1663	.2028	.2393	.2757	.3122	.3486	.3851	.4215	100	43.7500
10	.0228	.0592	.0957	.1322	.1686	.2051	.2415	.2780	.3145	.3509	.3874	.4238		
11	.0251	.0615	.0980	.1344	.1709	.2074	.2438	.2803	.3167	.3532	.3896	.4261		
12	.0273	.0638	.1003	.1367	.1732	.2096	.2461	.2826	.3190	.3555	.3919	.4284		
13	.0296	.0661	.1025	.1390	.1755	.2119	.2484	.2848	.3213	.3577	.3942	.4307		
14	.0319	.0684	.1048	.1413	.1777	.2142	.2507	.2871	.3236	.3600	.3965	.4329		
15	.0342	.0706	.1071	.1436	.1800	.2165	.2529	.2894	.3258	.3623	.3988	.4352		

Hypothenuse

0	.0000	.0910	.1819	.2729	.3638	.4548	.5458	.6367	.7277	.8186	.9096	1.0006	10	10.9152
1	.0057	.0966	.1876	.2786	.3695	.4605	.5514	.6424	.7334	.8243	.9153	1.0062	20	21.8303
2	.0114	.1023	.1933	.2842	.3752	.4662	.5571	.6481	.7390	.8300	.9210	1.0119	30	32.7455
3	.0171	.1080	.1990	.2899	.3809	.4719	.5628	.6538	.7447	.8357	.9267	1.0176	40	43.6606
4	.0227	.1137	.2047	.2956	.3866	.4775	.5685	.6595	.7504	.8414	.9323	1.0233	50	54.5758
5	.0284	.1194	.2103	.3013	.3923	.4832	.5742	.6651	.7561	.8471	.9380	1.0290	60	65.4909
6	.0341	.1251	.2160	.3070	.3979	.4889	.5799	.6708	.7618	.8527	.9437	1.0347	70	76.4061
7	.0398	.1308	.2217	.3127	.4036	.4946	.5856	.6765	.7675	.8584	.9494	1.0404	80	87.3212
8	.0455	.1364	.2274	.3184	.4093	.5003	.5912	.6822	.7732	.8641	.9551	1.0460	90	98.2364
9	.0512	.1421	.2331	.3240	.4150	.5060	.5969	.6879	.7788	.8698	.9608	1.0517	100	109.1516
10	.0568	.1478	.2388	.3297	.4207	.5116	.6026	.6936	.7845	.8755	.9664	1.0574		
11	.0625	.1535	.2445	.3354	.4264	.5173	.6083	.6993	.7902	.8812	.9721	1.0631		
12	.0682	.1592	.2501	.3411	.4321	.5230	.6140	.7049	.7959	.8869	.9778	1.0688		
13	.0739	.1649	.2558	.3468	.4377	.5287	.6197	.7106	.8016	.8925	.9835	1.0745		
14	.0796	.1705	.2615	.3525	.4434	.5344	.6253	.7163	.8073	.8982	.9892	1.0801		
15	.0853	.1762	.2672	.3582	.4491	.5401	.6310	.7220	.8130	.9039	.9949	1.0858		

Equivalent Angle 23° 52' 45"						Altitude					Batter 5 ⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0369	.0738	.1107	.1476	.1845	.2214	.2582	.2951	.3320	.3689	.4058	10	4.4271
1	.0023	.0392	.0761	.1130	.1499	.1868	.2237	.2606	.2974	.3343	.3712	.4081	20	8.8542
2	.0046	.0415	.0784	.1153	.1522	.1891	.2260	.2629	.2998	.3366	.3735	.4104	30	13.2813
3	.0069	.0438	.0807	.1176	.1545	.1914	.2283	.2652	.3021	.3389	.3758	.4127	40	17.7083
4	.0092	.0461	.0830	.1199	.1568	.1937	.2306	.2675	.3044	.3413	.3781	.4150	50	22.1354
5	.0115	.0484	.0853	.1222	.1591	.1960	.2329	.2698	.3067	.3436	.3805	.4173	60	26.5625
6	.0138	.0507	.0876	.1245	.1614	.1983	.2352	.2721	.3090	.3459	.3828	.4197	70	30.9896
7	.0161	.0530	.0899	.1268	.1637	.2006	.2375	.2744	.3113	.3482	.3851	.4220	80	35.4167
8	.0184	.0553	.0922	.1291	.1660	.2029	.2398	.2767	.3136	.3505	.3874	.4243	90	39.8438
9	.0208	.0576	.0945	.1314	.1683	.2052	.2421	.2790	.3159	.3528	.3897	.4266	100	44.2708
10	.0231	.0600	.0968	.1337	.1706	.2075	.2444	.2813	.3182	.3551	.3920	.4289		
11	.0254	.0623	.0991	.1360	.1729	.2098	.2467	.2836	.3205	.3574	.3943	.4312		
12	.0277	.0646	.1015	.1383	.1752	.2121	.2490	.2859	.3228	.3597	.3966	.4335		
13	.0300	.0669	.1038	.1407	.1775	.2144	.2513	.2882	.3251	.3620	.3989	.4358		
14	.0323	.0692	.1061	.1430	.1799	.2167	.2536	.2905	.3274	.3643	.4012	.4381		
15	.0346	.0715	.1084	.1453	.1822	.2190	.2559	.2928	.3297	.3666	.4035	.4404		

Hypotenuse

0	.0000	.0911	.1823	.2734	.3645	.4557	.5468	.6379	.7291	.8202	.9113	1.0025	10	10.9361
1	.0057	.0968	.1880	.2791	.3702	.4614	.5525	.6436	.7348	.8259	.9170	1.0082	20	21.8723
2	.0114	.1025	.1937	.2848	.3759	.4671	.5582	.6493	.7405	.8316	.9227	1.0139	30	32.8084
3	.0171	.1082	.1994	.2905	.3816	.4728	.5639	.6550	.7462	.8373	.9284	1.0196	40	43.7445
4	.0228	.1139	.2051	.2962	.3873	.4785	.5696	.6607	.7519	.8430	.9341	1.0253	50	54.6807
5	.0285	.1196	.2107	.3019	.3930	.4842	.5753	.6664	.7576	.8487	.9398	1.0310	60	65.6168
6	.0342	.1253	.2164	.3076	.3987	.4898	.5810	.6721	.7633	.8544	.9455	1.0367	70	76.5530
7	.0399	.1310	.2221	.3133	.4044	.4955	.5867	.6778	.7689	.8601	.9512	1.0424	80	87.4891
8	.0456	.1367	.2278	.3190	.4101	.5012	.5924	.6835	.7746	.8658	.9569	1.0480	90	98.4252
9	.0513	.1424	.2335	.3247	.4158	.5069	.5981	.6892	.7803	.8715	.9626	1.0537	100	109.3614
10	.0570	.1481	.2392	.3304	.4215	.5126	.6038	.6949	.7860	.8772	.9683	1.0594		
11	.0627	.1538	.2449	.3361	.4272	.5183	.6095	.7006	.7917	.8829	.9740	1.0651		
12	.0684	.1595	.2506	.3418	.4329	.5240	.6152	.7063	.7974	.8886	.9797	1.0708		
13	.0740	.1652	.2563	.3475	.4386	.5297	.6209	.7120	.8031	.8943	.9854	1.0765		
14	.0797	.1709	.2620	.3531	.4443	.5354	.6265	.7177	.8088	.9000	.9911	1.0822		
15	.0854	.1766	.2677	.3588	.4500	.5411	.6322	.7234	.8145	.9056	.9968	1.0879		

Equivalent Angle 24° 07' 42"

Altitude

Batter 5 $\frac{3}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0373	.0747	.1120	.1493	.1866	.2240	.2613	.2986	.3359	.3733	.4106	10	4.4792
1	.0023	.0397	.0770	.1143	.1516	.1890	.2263	.2636	.3009	.3383	.3756	.4129	20	8.9583
2	.0047	.0420	.0793	.1166	.1540	.1913	.2286	.2660	.3033	.3406	.3779	.4153	30	13.4375
3	.0070	.0443	.0817	.1190	.1563	.1936	.2310	.2683	.3056	.3429	.3803	.4176	40	17.9167
4	.0093	.0467	.0840	.1213	.1586	.1960	.2333	.2706	.3079	.3453	.3826	.4199	50	22.3958
5	.0117	.0490	.0863	.1236	.1610	.1983	.2356	.2729	.3103	.3476	.3849	.4223	60	26.8750
6	.0140	.0513	.0887	.1260	.1633	.2006	.2380	.2753	.3126	.3499	.3873	.4246	70	31.3542
7	.0163	.0537	.0910	.1283	.1656	.2030	.2403	.2776	.3149	.3523	.3896	.4269	80	35.8333
8	.0187	.0560	.0933	.1306	.1680	.2053	.2426	.2799	.3173	.3546	.3919	.4293	90	40.3125
9	.0210	.0583	.0956	.1330	.1703	.2076	.2450	.2823	.3196	.3569	.3943	.4316	100	44.7917
10	.0233	.0607	.0980	.1353	.1726	.2100	.2473	.2846	.3219	.3593	.3966	.4339		
11	.0257	.0630	.1003	.1376	.1750	.2123	.2496	.2869	.3243	.3616	.3989	.4363		
12	.0280	.0653	.1026	.1400	.1773	.2146	.2520	.2893	.3266	.3639	.4013	.4386		
13	.0303	.0677	.1050	.1423	.1796	.2170	.2543	.2916	.3289	.3663	.4036	.4409		
14	.0327	.0700	.1073	.1446	.1820	.2193	.2566	.2939	.3313	.3686	.4059	.4433		
15	.0350	.0723	.1096	.1470	.1843	.2216	.2590	.2963	.3336	.3709	.4083	.4456		

Hypotenuse

0	.0000	.0913	.1826	.2739	.3652	.4566	.5479	.6392	.7305	.8218	.9131	1.0044	10	10.9573
1	.0057	.0970	.1883	.2796	.3710	.4623	.5536	.6449	.7362	.8275	.9188	1.0101	20	21.9146
2	.0114	.1027	.1940	.2853	.3767	.4680	.5593	.6506	.7419	.8332	.9245	1.0158	30	32.8720
3	.0171	.1084	.1997	.2911	.3824	.4737	.5650	.6563	.7476	.8389	.9302	1.0215	40	43.8293
4	.0228	.1141	.2054	.2968	.3881	.4794	.5707	.6620	.7533	.8446	.9359	1.0272	50	54.7866
5	.0285	.1198	.2112	.3025	.3938	.4851	.5764	.6677	.7590	.8503	.9416	1.0330	60	65.7439
6	.0342	.1256	.2169	.3082	.3995	.4908	.5821	.6734	.7647	.8560	.9474	1.0387	70	76.7013
7	.0399	.1313	.2226	.3139	.4052	.4965	.5878	.6791	.7704	.8617	.9531	1.0444	80	87.6586
8	.0457	.1370	.2283	.3196	.4109	.5022	.5935	.6848	.7761	.8675	.9588	1.0501	90	98.6159
9	.0514	.1427	.2340	.3253	.4166	.5079	.5992	.6905	.7819	.8732	.9645	1.0558	100	109.5732
10	.0571	.1484	.2397	.3310	.4223	.5136	.6049	.6962	.7876	.8789	.9702	1.0615		
11	.0628	.1541	.2454	.3367	.4280	.5193	.6106	.7020	.7933	.8846	.9759	1.0672		
12	.0685	.1598	.2511	.3424	.4337	.5250	.6163	.7077	.7990	.8903	.9816	1.0729		
13	.0742	.1655	.2568	.3481	.4394	.5307	.6221	.7134	.8047	.8960	.9873	1.0786		
14	.0799	.1712	.2625	.3538	.4451	.5365	.6278	.7191	.8104	.9017	.9930	1.0843		
15	.0856	.1769	.2682	.3595	.4508	.5422	.6335	.7248	.8161	.9074	.9987	1.0900		

Equivalent Angle 24° 22' 35"						Altitude					Batter 5 ⁷ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0378	.0755	.1133	.1510	.1888	.2266	.2643	.3021	.3398	.3776	.4154	10	4.5313
1	.0024	.0401	.0779	.1156	.1534	.1912	.2289	.2667	.3044	.3422	.3800	.4177	20	9.0625
2	.0047	.0425	.0802	.1180	.1558	.1935	.2313	.2690	.3068	.3446	.3823	.4201	30	13.5938
3	.0071	.0448	.0826	.1204	.1581	.1959	.2336	.2714	.3092	.3469	.3847	.4224	40	18.1250
4	.0094	.0472	.0850	.1227	.1605	.1982	.2360	.2738	.3115	.3493	.3870	.4248	50	22.6563
5	.0118	.0496	.0873	.1251	.1628	.2006	.2384	.2761	.3139	.3516	.3894	.4272	60	27.1875
6	.0142	.0519	.0897	.1274	.1652	.2030	.2407	.2785	.3162	.3540	.3918	.4295	70	31.7188
7	.0165	.0543	.0920	.1298	.1676	.2053	.2431	.2808	.3186	.3564	.3941	.4319	80	36.2500
8	.0189	.0566	.0944	.1322	.1699	.2077	.2454	.2832	.3210	.3587	.3965	.4342	90	40.7813
9	.0212	.0590	.0968	.1345	.1723	.2100	.2478	.2856	.3233	.3611	.3988	.4366	100	45.3125
10	.0236	.0614	.0991	.1369	.1746	.2124	.2502	.2879	.3257	.3634	.4012	.4390		
11	.0260	.0637	.1015	.1392	.1770	.2148	.2525	.2903	.3280	.3658	.4036	.4413		
12	.0283	.0661	.1038	.1416	.1794	.2171	.2549	.2926	.3304	.3682	.4059	.4437		
13	.0307	.0684	.1062	.1440	.1817	.2195	.2572	.2950	.3328	.3705	.4083	.4460		
14	.0330	.0708	.1086	.1463	.1841	.2218	.2596	.2974	.3351	.3729	.4106	.4484		
15	.0354	.0732	.1109	.1487	.1864	.2242	.2620	.2997	.3375	.3752	.4130	.4508		

Hypotenuse

0	.0000	.0915	.1830	.2745	.3660	.4574	.5489	.6404	.7319	.8234	.9149	1.0064	10	10.9787
1	.0057	.0972	.1887	.2802	.3717	.4632	.5547	.6461	.7376	.8291	.9206	1.0121	20	21.9574
2	.0114	.1029	.1944	.2859	.3774	.4689	.5604	.6519	.7434	.8348	.9263	1.0178	30	32.9362
3	.0172	.1086	.2001	.2916	.3831	.4746	.5661	.6576	.7491	.8406	.9320	1.0235	40	43.9149
4	.0229	.1144	.2059	.2973	.3888	.4803	.5718	.6633	.7548	.8463	.9378	1.0293	50	54.8936
5	.0286	.1201	.2116	.3031	.3945	.4860	.5775	.6690	.7605	.8520	.9435	1.0350	60	65.8723
6	.0343	.1258	.2173	.3088	.4003	.4918	.5832	.6747	.7662	.8577	.9492	1.0407	70	76.8510
7	.0400	.1315	.2230	.3145	.4060	.4975	.5890	.6805	.7719	.8634	.9549	1.0464	80	87.8297
8	.0457	.1372	.2287	.3202	.4117	.5032	.5947	.6862	.7777	.8691	.9606	1.0521	90	98.8085
9	.0515	.1430	.2344	.3259	.4174	.5089	.6004	.6919	.7834	.8749	.9664	1.0578	100	109.7872
10	.0572	.1487	.2402	.3316	.4231	.5146	.6061	.6976	.7891	.8806	.9721	1.0636		
11	.0629	.1544	.2459	.3374	.4289	.5203	.6118	.7033	.7948	.8863	.9778	1.0693		
12	.0686	.1601	.2516	.3431	.4346	.5261	.6176	.7090	.8005	.8920	.9835	1.0750		
13	.0743	.1658	.2573	.3488	.4403	.5318	.6233	.7148	.8062	.8977	.9892	1.0807		
14	.0801	.1715	.2630	.3545	.4460	.5375	.6290	.7205	.8120	.9035	.9949	1.0864		
15	.0858	.1773	.2687	.3602	.4517	.5432	.6347	.7262	.8177	.9092	1.0007	1.0922		

Equivalent Angle 24° 37' 25"						Altitude					Batter 5½ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0382	.0764	.1146	.1528	.1910	.2292	.2674	.3056	.3438	.3819	.4201	10	4.5833
1	.0024	.0406	.0788	.1170	.1552	.1934	.2316	.2697	.3079	.3461	.3843	.4225	20	9.1667
2	.0048	.0430	.0812	.1194	.1576	.1957	.2339	.2721	.3103	.3485	.3867	.4249	30	13.7500
3	.0072	.0454	.0836	.1217	.1599	.1981	.2363	.2745	.3127	.3509	.3891	.4273	40	18.3333
4	.0095	.0477	.0859	.1241	.1623	.2005	.2387	.2769	.3151	.3533	.3915	.4297	50	22.9167
5	.0119	.0501	.0883	.1265	.1647	.2029	.2411	.2793	.3175	.3557	.3939	.4321	60	27.5000
6	.0143	.0525	.0907	.1289	.1671	.2053	.2435	.2817	.3199	.3581	.3963	.4345	70	32.0833
7	.0167	.0549	.0931	.1313	.1695	.2077	.2459	.2841	.3223	.3605	.3987	.4368	80	36.6667
8	.0191	.0573	.0955	.1337	.1719	.2101	.2483	.2865	.3247	.3628	.4010	.4392	90	41.2500
9	.0215	.0597	.0979	.1361	.1743	.2125	.2507	.2888	.3270	.3652	.4034	.4416	100	45.8333
10	.0239	.0621	.1003	.1385	.1766	.2148	.2530	.2912	.3294	.3676	.4058	.4440		
11	.0263	.0645	.1026	.1408	.1790	.2172	.2554	.2936	.3318	.3700	.4082	.4464		
12	.0286	.0668	.1050	.1432	.1814	.2196	.2578	.2960	.3342	.3724	.4106	.4488		
13	.0310	.0692	.1074	.1456	.1838	.2220	.2602	.2984	.3366	.3748	.4130	.4512		
14	.0334	.0716	.1098	.1480	.1862	.2244	.2626	.3008	.3390	.3772	.4154	.4536		
15	.0358	.0740	.1122	.1504	.1886	.2268	.2650	.3032	.3414	.3796	.4178	.4559		

Hypotenuse

0	.0000	.0917	.1833	.2750	.3667	.4583	.5500	.6417	.7334	.8250	.9167	1.0084	10	11.0003
1	.0057	.0974	.1891	.2807	.3724	.4641	.5557	.6474	.7391	.8308	.9224	1.0141	20	22.0006
2	.0115	.1031	.1948	.2865	.3781	.4698	.5615	.6531	.7448	.8365	.9282	1.0198	30	33.0009
3	.0172	.1089	.2005	.2922	.3839	.4755	.5672	.6589	.7505	.8422	.9339	1.0256	40	44.0013
4	.0229	.1146	.2063	.2979	.3896	.4813	.5729	.6646	.7563	.8479	.9396	1.0313	50	55.0016
5	.0286	.1203	.2120	.3037	.3953	.4870	.5787	.6703	.7620	.8537	.9453	1.0370	60	66.0019
6	.0344	.1260	.2177	.3094	.4010	.4927	.5844	.6761	.7677	.8594	.9511	1.0427	70	77.0022
7	.0401	.1318	.2234	.3151	.4068	.4985	.5901	.6818	.7735	.8651	.9568	1.0485	80	88.0025
8	.0458	.1375	.2292	.3208	.4125	.5042	.5959	.6875	.7792	.8709	.9625	1.0542	90	99.0028
9	.0516	.1432	.2349	.3266	.4182	.5099	.6016	.6932	.7849	.8766	.9683	1.0599	100	110.0032
10	.0573	.1490	.2406	.3323	.4240	.5156	.6073	.6990	.7906	.8823	.9740	1.0657		
11	.0630	.1547	.2464	.3380	.4297	.5214	.6130	.7047	.7964	.8880	.9797	1.0714		
12	.0688	.1604	.2521	.3438	.4354	.5271	.6188	.7104	.8021	.8938	.9854	1.0771		
13	.0745	.1662	.2578	.3495	.4412	.5328	.6245	.7162	.8078	.8995	.9912	1.0828		
14	.0802	.1719	.2635	.3552	.4469	.5386	.6302	.7219	.8136	.9052	.9969	1.0886		
15	.0859	.1776	.2693	.3610	.4526	.5443	.6360	.7276	.8193	.9110	1.0026	1.0943		

Equivalent Angle 24° 52' 11"						Altitude					Batter 5 ⁹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0386	.0773	.1159	.1545	.1931	.2318	.2704	.3090	.3477	.3863	.4249	10	4.6354
1	.0024	.0410	.0797	.1183	.1569	.1956	.2342	.2728	.3114	.3501	.3887	.4273	20	9.2708
2	.0048	.0435	.0821	.1207	.1593	.1980	.2366	.2752	.3139	.3525	.3911	.4297	30	13.9063
3	.0072	.0459	.0845	.1231	.1618	.2004	.2390	.2776	.3163	.3549	.3935	.4322	40	18.5417
4	.0097	.0483	.0869	.1255	.1642	.2028	.2414	.2801	.3187	.3573	.3959	.4346	50	23.1771
5	.0121	.0507	.0893	.1280	.1666	.2052	.2438	.2825	.3211	.3597	.3984	.4370	60	27.8125
6	.0145	.0531	.0917	.1304	.1690	.2076	.2463	.2849	.3235	.3621	.4008	.4394	70	32.4479
7	.0169	.0555	.0942	.1328	.1714	.2100	.2487	.2873	.3259	.3646	.4032	.4418	80	37.0833
8	.0193	.0579	.0966	.1352	.1738	.2125	.2511	.2897	.3283	.3670	.4056	.4442	90	41.7188
9	.0217	.0604	.0990	.1376	.1762	.2149	.2535	.2921	.3308	.3694	.4080	.4466	100	46.3542
10	.0241	.0628	.1014	.1400	.1787	.2173	.2559	.2945	.3332	.3718	.4104	.4491		
11	.0266	.0652	.1038	.1424	.1811	.2197	.2583	.2970	.3356	.3742	.4128	.4515		
12	.0290	.0676	.1062	.1449	.1835	.2221	.2607	.2994	.3380	.3766	.4153	.4539		
13	.0314	.0700	.1086	.1473	.1859	.2245	.2632	.3018	.3404	.3790	.4177	.4563		
14	.0338	.0724	.1111	.1497	.1883	.2269	.2656	.3042	.3428	.3815	.4201	.4587		
15	.0362	.0748	.1135	.1521	.1907	.2294	.2680	.3066	.3452	.3839	.4225	.4611		

Hypotenuse

0	.0000	.0919	.1837	.2756	.3674	.4593	.5511	.6430	.7348	.8267	.9185	1.0104	10	11.0221
1	.0057	.0976	.1894	.2813	.3731	.4650	.5568	.6487	.7405	.8324	.9243	1.0161	20	22.0442
2	.0115	.1033	.1952	.2870	.3789	.4707	.5626	.6544	.7463	.8381	.9300	1.0218	30	33.0664
3	.0172	.1091	.2009	.2928	.3846	.4765	.5683	.6602	.7520	.8439	.9357	1.0276	40	44.0885
4	.0230	.1148	.2067	.2985	.3904	.4822	.5741	.6659	.7578	.8496	.9415	1.0333	50	55.1106
5	.0287	.1206	.2124	.3043	.3961	.4880	.5798	.6717	.7635	.8554	.9472	1.0391	60	66.1327
6	.0344	.1263	.2181	.3100	.4018	.4937	.5856	.6774	.7693	.8611	.9530	1.0448	70	77.1548
7	.0402	.1320	.2239	.3157	.4076	.4994	.5913	.6831	.7750	.8668	.9587	1.0505	80	88.1769
8	.0459	.1378	.2296	.3215	.4133	.5052	.5970	.6889	.7807	.8726	.9644	1.0563	90	99.1991
9	.0517	.1435	.2354	.3272	.4191	.5109	.6028	.6946	.7865	.8783	.9702	1.0620	100	110.2212
10	.0574	.1493	.2411	.3330	.4248	.5167	.6085	.7004	.7922	.8841	.9759	1.0678		
11	.0631	.1550	.2468	.3387	.4306	.5224	.6143	.7061	.7980	.8898	.9817	1.0735		
12	.0689	.1607	.2526	.3444	.4363	.5281	.6200	.7118	.8037	.8955	.9874	1.0792		
13	.0746	.1665	.2583	.3502	.4420	.5339	.6257	.7176	.8094	.9013	.9931	1.0850		
14	.0804	.1722	.2641	.3559	.4478	.5396	.6315	.7233	.8152	.9070	.9989	1.0907		
15	.0861	.1780	.2698	.3617	.4535	.5454	.6372	.7291	.8209	.9128	1.0046	1.0965		

Equivalent Angle 25° 06' 53"

Altitude

Batter 5 $\frac{5}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0391	.0781	.1172	.1563	.1953	.2344	.2734	.3125	.3516	.3906	.4297	10	4.6875
1	.0024	.0415	.0806	.1196	.1587	.1978	.2368	.2759	.3149	.3540	.3931	.4321	20	9.3750
2	.0049	.0439	.0830	.1221	.1611	.2002	.2393	.2783	.3174	.3564	.3955	.4346	30	14.0625
3	.0073	.0464	.0854	.1245	.1636	.2026	.2417	.2808	.3198	.3589	.3979	.4370	40	18.7500
4	.0098	.0488	.0879	.1270	.1660	.2051	.2441	.2832	.3223	.3613	.4004	.4395	50	23.4375
5	.0122	.0513	.0903	.1294	.1685	.2075	.2466	.2856	.3247	.3638	.4028	.4419	60	28.1250
6	.0146	.0537	.0928	.1318	.1709	.2100	.2490	.2881	.3271	.3662	.4053	.4443	70	32.8125
7	.0171	.0562	.0952	.1343	.1733	.2124	.2515	.2905	.3296	.3687	.4077	.4468	80	37.5000
8	.0195	.0586	.0977	.1367	.1758	.2148	.2539	.2930	.3320	.3711	.4102	.4492	90	42.1875
9	.0220	.0610	.1001	.1392	.1782	.2173	.2563	.2954	.3345	.3735	.4126	.4517	100	46.8750
10	.0244	.0635	.1025	.1416	.1807	.2197	.2588	.2979	.3369	.3760	.4150	.4541		
11	.0269	.0659	.1050	.1440	.1831	.2222	.2612	.3003	.3394	.3784	.4175	.4565		
12	.0293	.0684	.1074	.1465	.1855	.2246	.2637	.3027	.3418	.3809	.4199	.4590		
13	.0317	.0708	.1099	.1489	.1880	.2271	.2661	.3052	.3442	.3833	.4224	.4614		
14	.0342	.0732	.1123	.1514	.1904	.2295	.2686	.3076	.3467	.3857	.4248	.4639		
15	.0366	.0757	.1147	.1538	.1929	.2319	.2710	.3101	.3491	.3882	.4272	.4663		

Hypotenuse

0	.0000	.0920	.1841	.2761	.3681	.4602	.5522	.6442	.7363	.8283	.9203	1.0124	10	11.0441
1	.0058	.0978	.1898	.2819	.3739	.4659	.5580	.6500	.7420	.8341	.9261	1.0181	20	22.0882
2	.0115	.1035	.1956	.2876	.3796	.4717	.5637	.6557	.7478	.8398	.9318	1.0239	30	33.1324
3	.0173	.1093	.2013	.2934	.3854	.4774	.5695	.6615	.7535	.8456	.9376	1.0296	40	44.1765
4	.0230	.1150	.2071	.2991	.3911	.4832	.5752	.6672	.7593	.8513	.9434	1.0354	50	55.2206
5	.0288	.1208	.2128	.3049	.3969	.4889	.5810	.6730	.7650	.8571	.9491	1.0411	60	66.2647
6	.0345	.1265	.2186	.3106	.4027	.4947	.5867	.6788	.7708	.8628	.9549	1.0469	70	77.3089
7	.0403	.1323	.2243	.3164	.4084	.5004	.5925	.6845	.7765	.8686	.9606	1.0526	80	88.3530
8	.0460	.1381	.2301	.3221	.4142	.5062	.5982	.6903	.7823	.8743	.9664	1.0584	90	99.3971
9	.0518	.1438	.2358	.3279	.4199	.5119	.6040	.6960	.7880	.8801	.9721	1.0641	100	110.4412
10	.0575	.1496	.2416	.3336	.4257	.5177	.6097	.7018	.7938	.8858	.9779	1.0699		
11	.0633	.1553	.2473	.3394	.4314	.5234	.6155	.7075	.7995	.8916	.9836	1.0757		
12	.0690	.1611	.2531	.3451	.4372	.5292	.6212	.7133	.8053	.8973	.9894	1.0814		
13	.0748	.1668	.2588	.3509	.4429	.5349	.6270	.7190	.8111	.9031	.9951	1.0872		
14	.0805	.1726	.2646	.3566	.4487	.5407	.6327	.7248	.8168	.9088	1.0009	1.0929		
15	.0863	.1783	.2704	.3624	.4544	.5465	.6385	.7305	.8226	.9146	1.0066	1.0987		

Equivalent Angle 25° 21' 32"						Altitude					Batter 5 ¹¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0395	.0790	.1185	.1580	.1975	.2370	.2765	.3160	.3555	.3950	.4345	10	4.7396
1	.0025	.0420	.0815	.1210	.1605	.2000	.2394	.2789	.3184	.3579	.3974	.4369	20	9.4792
2	.0049	.0444	.0839	.1234	.1629	.2024	.2419	.2814	.3209	.3604	.3999	.4394	30	14.2188
3	.0074	.0469	.0864	.1259	.1654	.2049	.2444	.2839	.3234	.3629	.4024	.4419	40	18.9583
4	.0099	.0494	.0889	.1284	.1679	.2074	.2469	.2863	.3258	.3653	.4048	.4443	50	23.6979
5	.0123	.0518	.0913	.1308	.1703	.2098	.2493	.2888	.3283	.3678	.4073	.4468	60	28.4375
6	.0148	.0543	.0938	.1333	.1728	.2123	.2518	.2913	.3308	.3703	.4098	.4493	70	33.1771
7	.0173	.0568	.0963	.1358	.1753	.2148	.2543	.2938	.3333	.3727	.4122	.4517	80	37.9167
8	.0197	.0592	.0987	.1382	.1777	.2172	.2567	.2962	.3357	.3752	.4147	.4542	90	42.6563
9	.0222	.0617	.1012	.1407	.1802	.2197	.2592	.2987	.3382	.3777	.4172	.4567	100	47.3958
10	.0247	.0642	.1037	.1432	.1827	.2222	.2617	.3012	.3407	.3802	.4197	.4591		
11	.0272	.0667	.1061	.1456	.1851	.2246	.2641	.3036	.3431	.3826	.4221	.4616		
12	.0296	.0691	.1086	.1481	.1876	.2271	.2666	.3061	.3456	.3851	.4246	.4641		
13	.0321	.0716	.1111	.1506	.1901	.2296	.2691	.3086	.3481	.3876	.4271	.4666		
14	.0346	.0741	.1136	.1530	.1925	.2320	.2715	.3110	.3505	.3900	.4295	.4690		
15	.0370	.0765	.1160	.1555	.1950	.2345	.2740	.3135	.3530	.3925	.4320	.4715		

Hypotenuse														
0	.0000	.0922	.1844	.2767	.3689	.4611	.5533	.6455	.7378	.8300	.9222	1.0144	10	11.0663
1	.0058	.0980	.1902	.2824	.3746	.4669	.5591	.6513	.7435	.8357	.9280	1.0202	20	22.1327
2	.0115	.1037	.1960	.2882	.3804	.4726	.5648	.6571	.7493	.8415	.9337	1.0259	30	33.1990
3	.0173	.1095	.2017	.2939	.3862	.4784	.5706	.6628	.7550	.8473	.9395	1.0317	40	44.2653
4	.0231	.1153	.2075	.2997	.3919	.4842	.5764	.6686	.7608	.8530	.9452	1.0375	50	55.3316
5	.0288	.1210	.2133	.3055	.3977	.4899	.5821	.6744	.7666	.8588	.9510	1.0432	60	66.3980
6	.0346	.1268	.2190	.3112	.4035	.4957	.5879	.6801	.7723	.8646	.9568	1.0490	70	77.4643
7	.0403	.1326	.2248	.3170	.4092	.5014	.5937	.6859	.7781	.8703	.9625	1.0548	80	88.5306
8	.0461	.1383	.2305	.3228	.4150	.5072	.5994	.6916	.7839	.8761	.9683	1.0605	90	99.5970
9	.0519	.1441	.2363	.3285	.4208	.5130	.6052	.6974	.7896	.8818	.9741	1.0663	100	110.6633
10	.0576	.1499	.2421	.3343	.4265	.5187	.6110	.7032	.7954	.8876	.9798	1.0721		
11	.0634	.1556	.2478	.3401	.4323	.5245	.6167	.7089	.8012	.8934	.9856	1.0778		
12	.0692	.1614	.2536	.3458	.4380	.5303	.6225	.7147	.8069	.8991	.9914	1.0836		
13	.0749	.1671	.2594	.3516	.4438	.5360	.6282	.7205	.8127	.9049	.9971	1.0893		
14	.0807	.1729	.2651	.3574	.4496	.5418	.6340	.7262	.8184	.9107	1.0029	1.0951		
15	.0865	.1787	.2709	.3631	.4553	.5476	.6398	.7320	.8242	.9164	1.0086	1.1009		

Equivalent Angle 25° 36' 07"

Altitude

Batter 5 $\frac{3}{4}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0399	.0799	.1198	.1597	.1997	.2396	.2795	.3194	.3594	.3993	.4392	10	4.7917
1	.0025	.0424	.0824	.1223	.1622	.2021	.2421	.2820	.3219	.3619	.4018	.4417	20	9.5833
2	.0050	.0449	.0849	.1248	.1647	.2046	.2446	.2845	.3244	.3644	.4043	.4442	30	14.3750
3	.0075	.0474	.0873	.1273	.1672	.2071	.2471	.2870	.3269	.3669	.4068	.4467	40	19.1667
4	.0100	.0499	.0898	.1298	.1697	.2096	.2496	.2895	.3294	.3694	.4093	.4492	50	23.9583
5	.0125	.0524	.0923	.1323	.1722	.2121	.2521	.2920	.3319	.3719	.4118	.4517	60	28.7500
6	.0150	.0549	.0948	.1348	.1747	.2146	.2546	.2945	.3344	.3743	.4143	.4542	70	33.5417
7	.0175	.0574	.0973	.1373	.1772	.2171	.2571	.2970	.3369	.3768	.4168	.4567	80	38.3333
8	.0200	.0599	.0998	.1398	.1797	.2196	.2595	.2995	.3394	.3793	.4193	.4592	90	43.1250
9	.0225	.0624	.1023	.1423	.1822	.2221	.2620	.3020	.3419	.3818	.4218	.4617	100	47.9167
10	.0250	.0649	.1048	.1447	.1847	.2246	.2645	.3045	.3444	.3843	.4243	.4642		
11	.0275	.0674	.1073	.1472	.1872	.2271	.2670	.3070	.3469	.3868	.4268	.4667		
12	.0299	.0699	.1098	.1497	.1897	.2296	.2695	.3095	.3494	.3893	.4293	.4692		
13	.0324	.0724	.1123	.1522	.1922	.2321	.2720	.3120	.3519	.3918	.4317	.4717		
14	.0349	.0749	.1148	.1547	.1947	.2346	.2745	.3145	.3544	.3943	.4342	.4742		
15	.0374	.0774	.1173	.1572	.1972	.2371	.2770	.3169	.3569	.3968	.4367	.4767		

Hypotenuse

0	.0000	.0924	.1848	.2772	.3696	.4620	.5544	.6468	.7392	.8317	.9241	1.0165	10	11.0887
1	.0058	.0982	.1906	.2830	.3754	.4678	.5602	.6526	.7450	.8374	.9398	1.0222	20	22.1775
2	.0116	.1040	.1964	.2888	.3812	.4736	.5660	.6584	.7508	.8432	.9356	1.0280	30	33.2662
3	.0173	.1097	.2021	.2945	.3870	.4794	.5718	.6642	.7566	.8490	.9414	1.0338	40	44.3549
4	.0231	.1155	.2079	.3003	.3927	.4851	.5775	.6699	.7624	.8548	.9472	1.0396	50	55.4437
5	.0289	.1213	.2137	.3061	.3985	.4909	.5833	.6757	.7681	.8605	.9529	1.0453	60	66.5324
6	.0347	.1271	.2195	.3119	.4043	.4967	.5891	.6815	.7739	.8663	.9587	1.0511	70	77.6212
7	.0404	.1328	.2252	.3176	.4101	.5025	.5949	.6873	.7797	.8721	.9645	1.0569	80	88.7099
8	.0462	.1386	.2310	.3234	.4158	.5082	.6006	.6930	.7855	.8779	.9703	1.0627	90	99.7986
9	.0520	.1444	.2368	.3292	.4216	.5140	.6064	.6988	.7912	.8836	.9760	1.0684	100	110.8874
10	.0578	.1502	.2426	.3350	.4274	.5198	.6122	.7046	.7970	.8894	.9818	1.0742		
11	.0635	.1559	.2483	.3407	.4332	.5256	.6180	.7104	.8028	.8952	.9876	1.0800		
12	.0693	.1617	.2541	.3465	.4389	.5313	.6237	.7161	.8086	.9010	.9934	1.0858		
13	.0751	.1675	.2599	.3523	.4447	.5371	.6295	.7219	.8143	.9067	.9991	1.0915		
14	.0809	.1733	.2657	.3581	.4505	.5429	.6353	.7277	.8201	.9125	1.0049	1.0973		
15	.0866	.1790	.2714	.3638	.4563	.5487	.6411	.7335	.8259	.9183	1.0107	1.1031		

Equivalent Angle 25° 50' 39"						Altitude					Batter 5 $\frac{13}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0404	.0807	.1211	.1615	.2018	.2422	.2826	.3229	.3633	.4036	.4440	10	4.8438
1	.0025	.0429	.0833	.1236	.1640	.2043	.2447	.2851	.3254	.3658	.4062	.4465	20	9.6875
2	.0050	.0454	.0858	.1261	.1665	.2069	.2472	.2876	.3280	.3683	.4087	.4491	30	14.5313
3	.0076	.0479	.0883	.1287	.1690	.2094	.2498	.2901	.3305	.3708	.4112	.4516	40	19.3750
4	.0101	.0505	.0908	.1312	.1715	.2119	.2523	.2926	.3330	.3734	.4137	.4541	50	24.2188
5	.0126	.0530	.0933	.1337	.1741	.2144	.2548	.2952	.3355	.3759	.4163	.4566	60	29.0625
6	.0151	.0555	.0959	.1362	.1766	.2170	.2573	.2977	.3381	.3784	.4188	.4591	70	33.9063
7	.0177	.0580	.0984	.1388	.1791	.2195	.2598	.3002	.3406	.3809	.4213	.4617	80	38.7500
8	.0202	.0605	.1009	.1413	.1816	.2220	.2624	.3027	.3431	.3835	.4238	.4642	90	43.5938
9	.0227	.0631	.1034	.1438	.1842	.2245	.2649	.3053	.3456	.3860	.4264	.4667	100	48.4375
10	.0252	.0656	.1060	.1463	.1867	.2271	.2674	.3078	.3481	.3885	.4289	.4692		
11	.0278	.0681	.1085	.1488	.1892	.2296	.2699	.3103	.3507	.3910	.4314	.4718		
12	.0303	.0706	.1110	.1514	.1917	.2321	.2725	.3128	.3532	.3936	.4339	.4743		
13	.0328	.0732	.1135	.1539	.1943	.2346	.2750	.3153	.3557	.3961	.4364	.4768		
14	.0353	.0757	.1160	.1564	.1968	.2371	.2775	.3179	.3582	.3986	.4390	.4793		
15	.0378	.0782	.1186	.1589	.1993	.2397	.2800	.3204	.3608	.4011	.4415	.4819		

Hypotenuse

0	.0000	.0926	.1852	.2778	.3704	.4630	.5556	.6482	.7408	.8334	.9259	1.0185	10	11.1113
1	.0058	.0984	.1910	.2836	.3762	.4688	.5614	.6539	.7465	.8391	.9317	1.0243	20	22.2227
2	.0116	.1042	.1968	.2894	.3820	.4745	.5671	.6597	.7523	.8449	.9375	1.0301	30	33.3340
3	.0174	.1100	.2026	.2951	.3877	.4803	.5729	.6655	.7581	.8507	.9433	1.0359	40	44.4454
4	.0231	.1157	.2083	.3009	.3935	.4861	.5787	.6713	.7639	.8565	.9491	1.0417	50	55.5567
5	.0289	.1215	.2141	.3067	.3993	.4919	.5845	.6771	.7697	.8623	.9549	1.0475	60	66.6681
6	.0347	.1273	.2199	.3125	.4051	.4977	.5903	.6829	.7755	.8681	.9607	1.0533	70	77.7794
7	.0405	.1331	.2257	.3183	.4109	.5035	.5961	.6887	.7813	.8739	.9665	1.0590	80	88.8907
8	.0463	.1389	.2315	.3241	.4167	.5093	.6019	.6945	.7871	.8796	.9722	1.0648	90	100.0021
9	.0521	.1447	.2373	.3299	.4225	.5151	.6077	.7002	.7928	.8854	.9780	1.0706	100	111.1134
10	.0579	.1505	.2431	.3357	.4282	.5208	.6134	.7060	.7986	.8912	.9838	1.0764		
11	.0637	.1563	.2488	.3414	.4340	.5266	.6192	.7118	.8044	.8970	.9896	1.0822		
12	.0694	.1620	.2546	.3472	.4398	.5324	.6250	.7176	.8102	.9028	.9954	1.0880		
13	.0752	.1678	.2604	.3530	.4456	.5382	.6308	.7234	.8160	.9086	1.0012	1.0938		
14	.0810	.1736	.2662	.3588	.4514	.5440	.6366	.7292	.8218	.9144	1.0070	1.0996		
15	.0868	.1794	.2720	.3646	.4572	.5498	.6424	.7350	.8276	.9202	1.0128	1.1053		

Equivalent Angle 26° 05' 08"

Altitude

Batter 5 $\frac{1}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0408	.0816	.1224	.1632	.2040	.2448	.2856	.3264	.3672	.4080	.4488	10	4.8958
1	.0025	.0433	.0841	.1249	.1657	.2065	.2473	.2881	.3289	.3697	.4105	.4513	20	9.7917
2	.0051	.0459	.0867	.1275	.1683	.2091	.2499	.2907	.3315	.3723	.4131	.4539	30	14.6875
3	.0076	.0484	.0892	.1300	.1708	.2116	.2524	.2932	.3340	.3748	.4156	.4564	40	19.5833
4	.0102	.0510	.0918	.1326	.1734	.2142	.2550	.2958	.3366	.3774	.4182	.4590	50	24.4792
5	.0127	.0535	.0943	.1351	.1759	.2167	.2575	.2983	.3391	.3799	.4207	.4615	60	29.3750
6	.0153	.0561	.0969	.1377	.1785	.2193	.2601	.3009	.3417	.3825	.4233	.4641	70	34.2708
7	.0178	.0586	.0994	.1402	.1810	.2218	.2626	.3034	.3442	.3850	.4258	.4666	80	39.1667
8	.0204	.0612	.1020	.1428	.1836	.2244	.2652	.3060	.3468	.3876	.4284	.4692	90	44.0625
9	.0229	.0637	.1045	.1453	.1861	.2269	.2677	.3085	.3493	.3901	.4309	.4717	100	48.9583
10	.0255	.0663	.1071	.1479	.1887	.2295	.2703	.3111	.3519	.3927	.4335	.4743		
11	.0280	.0688	.1096	.1504	.1912	.2320	.2728	.3136	.3544	.3952	.4360	.4768		
12	.0306	.0714	.1122	.1530	.1938	.2346	.2754	.3162	.3570	.3978	.4386	.4794		
13	.0331	.0739	.1147	.1555	.1963	.2371	.2779	.3187	.3595	.4003	.4411	.4819		
14	.0357	.0765	.1173	.1581	.1989	.2397	.2805	.3213	.3621	.4029	.4437	.4845		
15	.0382	.0790	.1198	.1606	.2014	.2422	.2830	.3238	.3646	.4054	.4462	.4870		

Hypothenuse

0	.0000	.0928	.1856	.2784	.3711	.4639	.5567	.6495	.7423	.8351	.9278	1.0206	10	11.1341
1	.0058	.0986	.1914	.2842	.3769	.4697	.5625	.6553	.7481	.8409	.9336	1.0264	20	22.2683
2	.0116	.1044	.1972	.2900	.3827	.4755	.5683	.6611	.7539	.8467	.9394	1.0322	30	33.4024
3	.0174	.1102	.2030	.2958	.3885	.4813	.5741	.6669	.7597	.8525	.9452	1.0380	40	44.5366
4	.0232	.1160	.2088	.3015	.3943	.4871	.5799	.6727	.7655	.8583	.9510	1.0438	50	55.6707
5	.0290	.1218	.2146	.3073	.4001	.4929	.5857	.6785	.7713	.8641	.9568	1.0496	60	66.8049
6	.0348	.1276	.2204	.3131	.4059	.4987	.5915	.6843	.7771	.8699	.9626	1.0554	70	77.9390
7	.0406	.1334	.2262	.3189	.4117	.5045	.5973	.6901	.7829	.8757	.9684	1.0612	80	89.0731
8	.0464	.1392	.2320	.3247	.4175	.5103	.6031	.6959	.7887	.8815	.9742	1.0670	90	100.2073
9	.0522	.1450	.2378	.3305	.4233	.5161	.6089	.7017	.7945	.8873	.9800	1.0728	100	111.3414
10	.0580	.1508	.2436	.3363	.4291	.5219	.6147	.7075	.8003	.8931	.9858	1.0786		
11	.0638	.1566	.2494	.3421	.4349	.5277	.6205	.7133	.8061	.8989	.9916	1.0844		
12	.0696	.1624	.2552	.3479	.4407	.5335	.6263	.7191	.8119	.9046	.9974	1.0902		
13	.0754	.1682	.2610	.3537	.4465	.5393	.6321	.7249	.8177	.9104	1.0032	1.0960		
14	.0812	.1740	.2668	.3595	.4523	.5451	.6379	.7307	.8235	.9162	1.0090	1.1018		
15	.0870	.1798	.2726	.3653	.4581	.5509	.6437	.7365	.8293	.9220	1.0148	1.1076		

Equivalent Angle 26° 19' 33"						Altitude					Batter 5 ¹⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0412	.0825	.1237	.1649	.2062	.2474	.2886	.3299	.3711	.4123	.4536	10	4.9479
1	.0026	.0438	.0850	.1263	.1675	.2087	.2500	.2912	.3324	.3737	.4149	.4561	20	9.8958
2	.0052	.0464	.0876	.1289	.1701	.2113	.2525	.2938	.3350	.3762	.4175	.4587	30	14.8438
3	.0077	.0490	.0902	.1314	.1727	.2139	.2551	.2964	.3376	.3788	.4201	.4613	40	19.7917
4	.0103	.0515	.0928	.1340	.1752	.2165	.2577	.2989	.3402	.3814	.4226	.4639	50	24.7396
5	.0129	.0541	.0954	.1366	.1778	.2190	.2603	.3015	.3427	.3840	.4252	.4664	60	29.6875
6	.0155	.0567	.0979	.1392	.1804	.2216	.2629	.3041	.3453	.3866	.4278	.4690	70	34.6354
7	.0180	.0593	.1005	.1417	.1830	.2242	.2654	.3067	.3479	.3891	.4304	.4716	80	39.5833
8	.0206	.0618	.1031	.1443	.1855	.2268	.2680	.3092	.3505	.3917	.4329	.4742	90	44.5313
9	.0232	.0644	.1057	.1469	.1881	.2294	.2706	.3118	.3531	.3943	.4355	.4768	100	49.4792
10	.0258	.0670	.1082	.1495	.1907	.2319	.2732	.3144	.3556	.3969	.4381	.4793		
11	.0283	.0696	.1108	.1520	.1933	.2345	.2757	.3170	.3582	.3994	.4407	.4819		
12	.0309	.0722	.1134	.1546	.1959	.2371	.2783	.3196	.3608	.4020	.4433	.4845		
13	.0335	.0747	.1160	.1572	.1984	.2397	.2809	.3221	.3634	.4046	.4458	.4871		
14	.0361	.0773	.1185	.1598	.2010	.2422	.2835	.3247	.3659	.4072	.4484	.4896		
15	.0387	.0799	.1211	.1624	.2036	.2448	.2861	.3273	.3685	.4097	.4510	.4922		

Hypotenuse														
0	.0000	.0930	.1860	.2789	.3719	.4649	.5579	.6508	.7438	.8368	.9298	1.0227	10	11.1571
1	.0058	.0988	.1918	.2847	.3777	.4707	.5637	.6566	.7496	.8426	.9356	1.0285	20	22.3143
2	.0116	.1046	.1976	.2906	.3835	.4765	.5695	.6625	.7554	.8484	.9414	1.0344	30	33.4714
3	.0174	.1104	.2034	.2964	.3893	.4823	.5753	.6683	.7612	.8542	.9472	1.0402	40	44.6286
4	.0232	.1162	.2092	.3022	.3951	.4881	.5811	.6741	.7671	.8600	.9530	1.0460	50	55.7857
5	.0291	.1220	.2150	.3080	.4010	.4939	.5869	.6799	.7729	.8658	.9588	1.0518	60	66.9429
6	.0349	.1278	.2208	.3138	.4068	.4997	.5927	.6857	.7787	.8717	.9646	1.0576	70	78.1000
7	.0407	.1337	.2266	.3196	.4126	.5056	.5985	.6915	.7845	.8775	.9704	1.0634	80	89.2572
8	.0465	.1395	.2324	.3254	.4184	.5114	.6043	.6973	.7903	.8833	.9763	1.0692	90	100.4143
9	.0523	.1453	.2383	.3312	.4242	.5172	.6102	.7031	.7961	.8891	.9821	1.0750	100	111.5714
10	.0581	.1511	.2441	.3370	.4300	.5230	.6160	.7089	.8019	.8949	.9879	1.0808		
11	.0639	.1569	.2499	.3428	.4358	.5288	.6218	.7148	.8077	.9007	.9937	1.0867		
12	.0697	.1627	.2557	.3487	.4416	.5346	.6276	.7206	.8135	.9065	.9995	1.0925		
13	.0755	.1685	.2615	.3545	.4474	.5404	.6334	.7264	.8194	.9123	1.0053	1.0983		
14	.0814	.1743	.2673	.3603	.4533	.5462	.6392	.7322	.8252	.9181	1.0111	1.1041		
15	.0872	.1801	.2731	.3661	.4591	.5520	.6450	.7380	.8310	.9240	1.0169	1.1099		

Equivalent Angle 26° 33' 54"

Altitude

Batter 6 to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0417	.0833	.1250	.1667	.2083	.2500	.2917	.3333	.3750	.4167	.4583	10	5.0000
1	.0026	.0443	.0859	.1276	.1693	.2109	.2526	.2943	.3359	.3776	.4193	.4609	20	10.0000
2	.0052	.0469	.0885	.1302	.1719	.2135	.2552	.2969	.3385	.3802	.4219	.4635	30	15.0000
3	.0078	.0495	.0911	.1328	.1745	.2161	.2578	.2995	.3411	.3828	.4245	.4661	40	20.0000
4	.0104	.0521	.0938	.1354	.1771	.2188	.2604	.3021	.3438	.3854	.4271	.4688	50	25.0000
5	.0130	.0547	.0964	.1380	.1797	.2214	.2630	.3047	.3464	.3880	.4297	.4714	60	30.0000
6	.0156	.0573	.0990	.1406	.1823	.2240	.2656	.3073	.3490	.3906	.4323	.4740	70	35.0000
7	.0182	.0599	.1016	.1432	.1849	.2266	.2682	.3099	.3516	.3932	.4349	.4766	80	40.0000
8	.0208	.0625	.1042	.1458	.1875	.2292	.2708	.3125	.3542	.3958	.4375	.4792	90	45.0000
9	.0234	.0651	.1068	.1484	.1901	.2318	.2734	.3151	.3568	.3984	.4401	.4818	100	50.0000
10	.0260	.0677	.1094	.1510	.1927	.2344	.2760	.3177	.3594	.4010	.4427	.4844		
11	.0286	.0703	.1120	.1536	.1953	.2370	.2786	.3203	.3620	.4036	.4453	.4870		
12	.0313	.0729	.1146	.1563	.1979	.2396	.2813	.3229	.3646	.4063	.4479	.4896		
13	.0339	.0755	.1172	.1589	.2005	.2422	.2839	.3255	.3672	.4089	.4505	.4922		
14	.0365	.0781	.1198	.1615	.2031	.2448	.2865	.3281	.3698	.4115	.4531	.4948		
15	.0391	.0807	.1224	.1641	.2057	.2474	.2891	.3307	.3724	.4141	.4557	.4974		

Hypotenuse

0	.0000	.0932	.1863	.2795	.3727	.4658	.5590	.6522	.7454	.8385	.9317	1.0249	10	11.1803
1	.0058	.0990	.1922	.2853	.3785	.4717	.5648	.6580	.7512	.8443	.9375	1.0307	20	22.3607
2	.0116	.1048	.1980	.2912	.3843	.4775	.5707	.6638	.7570	.8502	.9433	1.0365	30	33.5410
3	.0175	.1106	.2038	.2970	.3901	.4833	.5765	.6697	.7628	.8560	.9492	1.0423	40	44.7214
4	.0233	.1165	.2096	.3028	.3960	.4891	.5823	.6755	.7686	.8618	.9550	1.0482	50	55.9017
5	.0291	.1223	.2155	.3086	.4018	.4950	.5881	.6813	.7745	.8676	.9608	1.0540	60	67.0820
6	.0349	.1281	.2213	.3144	.4076	.5008	.5940	.6871	.7803	.8735	.9666	1.0598	70	78.2624
7	.0408	.1339	.2271	.3203	.4134	.5066	.5998	.6929	.7861	.8793	.9725	1.0656	80	89.4427
8	.0466	.1398	.2329	.3261	.4193	.5124	.6056	.6988	.7919	.8851	.9783	1.0714	90	100.6231
9	.0524	.1456	.2387	.3319	.4251	.5183	.6114	.7046	.7978	.8909	.9841	1.0773	100	111.8034
10	.0582	.1514	.2446	.3377	.4309	.5241	.6172	.7104	.8036	.8968	.9899	1.0831		
11	.0641	.1572	.2504	.3436	.4367	.5299	.6231	.7162	.8094	.9026	.9957	1.0889		
12	.0699	.1630	.2562	.3494	.4426	.5357	.6289	.7221	.8152	.9084	1.0016	1.0947		
13	.0757	.1689	.2620	.3552	.4484	.5415	.6347	.7279	.8211	.9142	1.0074	1.1006		
14	.0815	.1747	.2679	.3610	.4542	.5474	.6405	.7337	.8269	.9200	1.0132	1.1064		
15	.0873	.1805	.2737	.3669	.4600	.5532	.6464	.7395	.8327	.9259	1.0190	1.1122		

Equivalent Angle 26° 48' 11"						Altitude					Batter 6 ¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0421	.0842	.1263	.1684	.2105	.2526	.2947	.3368	.3789	.4210	.4631	10	5.0521
1	.0026	.0447	.0868	.1289	.1710	.2131	.2552	.2973	.3394	.3815	.4236	.4657	20	10.1042
2	.0053	.0474	.0895	.1316	.1737	.2158	.2579	.3000	.3421	.3842	.4263	.4684	30	15.1563
3	.0079	.0500	.0921	.1342	.1763	.2184	.2605	.3026	.3447	.3868	.4289	.4710	40	20.2083
4	.0105	.0526	.0947	.1368	.1789	.2210	.2631	.3052	.3473	.3894	.4315	.4736	50	25.2604
5	.0132	.0553	.0974	.1395	.1816	.2237	.2658	.3079	.3500	.3921	.4342	.4763	60	30.3125
6	.0158	.0579	.1000	.1421	.1842	.2263	.2684	.3105	.3526	.3947	.4368	.4789	70	35.3646
7	.0184	.0605	.1026	.1447	.1868	.2289	.2710	.3131	.3552	.3973	.4394	.4815	80	40.4167
8	.0211	.0632	.1053	.1474	.1895	.2316	.2737	.3158	.3579	.4000	.4421	.4842	90	45.4688
9	.0237	.0658	.1079	.1500	.1921	.2342	.2763	.3184	.3605	.4026	.4447	.4868	100	50.5208
10	.0263	.0684	.1105	.1526	.1947	.2368	.2789	.3210	.3631	.4052	.4473	.4894		
11	.0289	.0710	.1131	.1552	.1973	.2394	.2815	.3236	.3657	.4079	.4500	.4921		
12	.0316	.0737	.1158	.1579	.2000	.2421	.2842	.3263	.3684	.4105	.4526	.4947		
13	.0342	.0763	.1184	.1605	.2026	.2447	.2868	.3289	.3710	.4131	.4552	.4973		
14	.0368	.0789	.1210	.1631	.2052	.2473	.2894	.3315	.3736	.4157	.4578	.4999		
15	.0395	.0816	.1237	.1658	.2079	.2500	.2921	.3342	.3763	.4184	.4605	.5026		

Hypotenuse														
0	.0000	.0934	.1867	.2801	.3735	.4668	.5602	.6536	.7469	.8403	.9336	1.0270	10	11.2037
1	.0058	.0992	.1926	.2859	.3793	.4727	.5660	.6594	.7528	.8461	.9395	1.0328	20	22.4075
2	.0117	.1050	.1984	.2918	.3851	.4785	.5719	.6652	.7586	.8520	.9453	1.0387	30	33.6112
3	.0175	.1109	.2042	.2976	.3910	.4843	.5777	.6711	.7644	.8578	.9511	1.0445	40	44.8149
4	.0233	.1167	.2101	.3034	.3968	.4902	.5835	.6769	.7703	.8636	.9570	1.0503	50	56.0186
5	.0292	.1225	.2159	.3093	.4026	.4960	.5894	.6827	.7761	.8695	.9628	1.0562	60	67.2224
6	.0350	.1284	.2217	.3151	.4085	.5018	.5952	.6886	.7819	.8753	.9687	1.0620	70	78.4261
7	.0408	.1342	.2276	.3209	.4143	.5077	.6010	.6944	.7878	.8811	.9745	1.0679	80	89.6298
8	.0467	.1400	.2334	.3268	.4201	.5135	.6069	.7002	.7936	.8870	.9803	1.0737	90	100.8336
9	.0525	.1459	.2392	.3326	.4260	.5193	.6127	.7061	.7994	.8928	.9862	1.0795	100	112.0373
10	.0584	.1517	.2451	.3384	.4318	.5252	.6185	.7119	.8053	.8986	.9920	1.0854		
11	.0642	.1576	.2509	.3443	.4376	.5310	.6244	.7177	.8111	.9045	.9978	1.0912		
12	.0700	.1634	.2568	.3501	.4435	.5368	.6302	.7236	.8169	.9103	1.0037	1.0970		
13	.0759	.1692	.2626	.3560	.4493	.5427	.6360	.7294	.8228	.9161	1.0095	1.1029		
14	.0817	.1751	.2684	.3618	.4552	.5485	.6419	.7352	.8286	.9220	1.0153	1.1087		
15	.0875	.1809	.2743	.3676	.4610	.5544	.6477	.7411	.8344	.9278	1.0212	1.1145		

Equivalent Angle 27° 02' 25"

Altitude

Batter 6 $\frac{1}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0425	.0851	.1276	.1701	.2127	.2552	.2977	.3403	.3828	.4253	.4679	10	5.1042
1	.0027	.0452	.0877	.1303	.1728	.2153	.2579	.3004	.3429	.3855	.4280	.4705	20	10.2083
2	.0053	.0479	.0904	.1329	.1755	.2180	.2605	.3031	.3456	.3881	.4307	.4732	30	15.3125
3	.0080	.0505	.0930	.1356	.1781	.2206	.2632	.3057	.3483	.3908	.4333	.4759	40	20.4167
4	.0106	.0532	.0957	.1382	.1808	.2233	.2658	.3084	.3509	.3934	.4360	.4785	50	25.5208
5	.0133	.0558	.0984	.1409	.1834	.2260	.2685	.3110	.3536	.3961	.4386	.4812	60	30.6250
6	.0160	.0585	.1010	.1436	.1861	.2286	.2712	.3137	.3562	.3988	.4413	.4838	70	35.7292
7	.0186	.0611	.1037	.1462	.1887	.2313	.2738	.3164	.3589	.4014	.4440	.4865	80	40.8333
8	.0213	.0638	.1063	.1489	.1914	.2339	.2765	.3190	.3615	.4041	.4466	.4891	90	45.9375
9	.0239	.0665	.1090	.1515	.1941	.2366	.2791	.3217	.3642	.4067	.4493	.4918	100	51.0417
10	.0266	.0691	.1117	.1542	.1967	.2393	.2818	.3243	.3669	.4094	.4519	.4945		
11	.0292	.0718	.1143	.1568	.1994	.2419	.2845	.3270	.3695	.4121	.4546	.4971		
12	.0319	.0744	.1170	.1595	.2020	.2446	.2871	.3296	.3722	.4147	.4572	.4998		
13	.0346	.0771	.1196	.1622	.2047	.2472	.2898	.3323	.3748	.4174	.4599	.5024		
14	.0372	.0798	.1223	.1648	.2074	.2499	.2924	.3350	.3775	.4200	.4626	.5051		
15	.0399	.0824	.1249	.1675	.2100	.2525	.2951	.3376	.3802	.4227	.4652	.5078		

Hypotenuse

0	.0000	.0936	.1871	.2807	.3742	.4678	.5614	.6549	.7485	.8420	.9356	1.0292	10	11.2273
1	.0058	.0994	.1930	.2865	.3801	.4737	.5672	.6608	.7543	.8479	.9415	1.0350	20	22.4546
2	.0117	.1053	.1988	.2924	.3859	.4795	.5731	.6666	.7602	.8537	.9473	1.0409	30	33.6819
3	.0175	.1111	.2047	.2982	.3918	.4853	.5789	.6725	.7660	.8596	.9532	1.0467	40	44.9092
4	.0234	.1170	.2105	.3041	.3976	.4912	.5848	.6783	.7719	.8654	.9590	1.0526	50	56.1366
5	.0292	.1228	.2164	.3099	.4035	.4970	.5906	.6842	.7777	.8713	.9648	1.0584	60	67.3639
6	.0351	.1286	.2222	.3158	.4093	.5029	.5965	.6900	.7836	.8771	.9707	1.0643	70	78.5912
7	.0409	.1345	.2281	.3216	.4152	.5087	.6023	.6959	.7894	.8830	.9765	1.0701	80	89.8185
8	.0468	.1403	.2339	.3275	.4210	.5146	.6081	.7017	.7953	.8888	.9824	1.0760	90	101.0458
9	.0526	.1462	.2397	.3333	.4269	.5204	.6140	.7076	.8011	.8947	.9882	1.0818	100	112.2731
10	.0585	.1520	.2456	.3392	.4327	.5263	.6198	.7134	.8070	.9005	.9941	1.0876		
11	.0643	.1579	.2514	.3450	.4386	.5321	.6257	.7192	.8128	.9064	.9999	1.0935		
12	.0702	.1637	.2573	.3509	.4444	.5380	.6315	.7251	.8187	.9122	1.0058	1.0993		
13	.0760	.1696	.2631	.3567	.4503	.5438	.6374	.7309	.8245	.9181	1.0116	1.1052		
14	.0819	.1754	.2690	.3625	.4561	.5497	.6432	.7368	.8304	.9239	1.0175	1.1110		
15	.0877	.1813	.2748	.3684	.4620	.5555	.6491	.7426	.8362	.9298	1.0233	1.1169		

Equivalent Angle 27° 16' 36"						Altitude					Batter 6 $\frac{3}{16}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0430	.0859	.1289	.1719	.2148	.2578	.3008	.3438	.3867	.4297	.4727	10 5.1563
1	.0027	.0457	.0886	.1316	.1746	.2175	.2605	.3035	.3464	.3894	.4324	.4753	20 10.3125
2	.0054	.0483	.0913	.1343	.1772	.2202	.2632	.3062	.3491	.3921	.4351	.4780	30 15.4688
3	.0081	.0510	.0940	.1370	.1799	.2229	.2659	.3088	.3518	.3948	.4377	.4807	40 20.6250
4	.0107	.0537	.0967	.1396	.1826	.2256	.2686	.3115	.3545	.3975	.4404	.4834	50 25.7813
5	.0134	.0564	.0994	.1423	.1853	.2283	.2712	.3142	.3572	.4001	.4431	.4861	60 30.9375
6	.0161	.0591	.1021	.1450	.1880	.2310	.2739	.3169	.3599	.4028	.4458	.4888	70 36.0938
7	.0188	.0618	.1047	.1477	.1907	.2336	.2766	.3196	.3625	.4055	.4485	.4915	80 41.2500
8	.0215	.0645	.1074	.1504	.1934	.2363	.2793	.3223	.3652	.4082	.4512	.4941	90 46.4063
9	.0242	.0671	.1101	.1531	.1960	.2390	.2820	.3250	.3679	.4109	.4539	.4968	100 51.5625
10	.0269	.0698	.1128	.1558	.1987	.2417	.2847	.3276	.3706	.4136	.4565	.4995	
11	.0295	.0725	.1155	.1584	.2014	.2444	.2874	.3303	.3733	.4163	.4592	.5022	
12	.0322	.0752	.1182	.1611	.2041	.2471	.2900	.3330	.3760	.4189	.4619	.5049	
13	.0349	.0779	.1208	.1638	.2068	.2498	.2927	.3357	.3787	.4216	.4646	.5076	
14	.0376	.0806	.1235	.1665	.2095	.2524	.2954	.3384	.3813	.4243	.4673	.5103	
15	.0403	.0833	.1262	.1692	.2122	.2551	.2981	.3411	.3840	.4270	.4700	.5129	

Hypothénuse

0	.0000	.0938	.1875	.2813	.3750	.4688	.5626	.6563	.7501	.8438	.9376	1.0313	10 11.2511
1	.0059	.0996	.1934	.2871	.3809	.4747	.5684	.6622	.7559	.8497	.9435	1.0372	20 22.5022
2	.0117	.1055	.1992	.2930	.3868	.4805	.5743	.6680	.7618	.8556	.9493	1.0431	30 33.7533
3	.0176	.1113	.2051	.2989	.3926	.4864	.5801	.6739	.7677	.8614	.9552	1.0489	40 45.0043
4	.0234	.1172	.2110	.3047	.3985	.4922	.5860	.6798	.7735	.8673	.9610	1.0548	50 56.2554
5	.0293	.1231	.2168	.3106	.4043	.4981	.5919	.6856	.7794	.8731	.9669	1.0606	60 67.5065
6	.0352	.1289	.2227	.3164	.4102	.5040	.5977	.6915	.7852	.8790	.9728	1.0665	70 78.7576
7	.0410	.1348	.2285	.3223	.4161	.5098	.6036	.6973	.7911	.8849	.9786	1.0724	80 90.0087
8	.0469	.1406	.2344	.3282	.4219	.5157	.6094	.7032	.7970	.8907	.9845	1.0782	90 101.2598
9	.0527	.1465	.2403	.3340	.4278	.5215	.6153	.7091	.8028	.8966	.9903	1.0841	100 112.5109
10	.0586	.1524	.2461	.3399	.4336	.5274	.6212	.7149	.8087	.9024	.9962	1.0899	
11	.0645	.1582	.2520	.3457	.4395	.5333	.6270	.7208	.8145	.9083	1.0020	1.0958	
12	.0703	.1641	.2578	.3516	.4454	.5391	.6329	.7267	.8204	.9142	1.0079	1.1017	
13	.0762	.1699	.2637	.3575	.4512	.5450	.6387	.7325	.8263	.9200	1.0138	1.1075	
14	.0820	.1758	.2696	.3633	.4571	.5508	.6446	.7384	.8321	.9259	1.0196	1.1134	
15	.0879	.1817	.2754	.3692	.4629	.5567	.6505	.7442	.8380	.9317	1.0255	1.1192	

Equivalent Angle 27° 30' 42"

Altitude

Batter 6½ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0434	.0868	.1302	.1736	.2170	.2604	.3038	.3472	.3906	.4340	.4774	10	5.2083
1	.0027	.0461	.0895	.1329	.1763	.2197	.2631	.3065	.3499	.3933	.4367	.4801	20	10.4167
2	.0054	.0488	.0922	.1356	.1790	.2224	.2658	.3092	.3526	.3961	.4395	.4829	30	15.6250
3	.0081	.0515	.0949	.1383	.1817	.2252	.2686	.3120	.3554	.3988	.4422	.4856	40	20.8333
4	.0109	.0543	.0977	.1411	.1845	.2279	.2713	.3147	.3581	.4015	.4449	.4883	50	26.0417
5	.0136	.0570	.1004	.1438	.1872	.2306	.2740	.3174	.3608	.4042	.4476	.4910	60	31.2500
6	.0163	.0597	.1031	.1465	.1899	.2333	.2767	.3201	.3635	.4069	.4503	.4937	70	36.4583
7	.0190	.0624	.1058	.1492	.1926	.2360	.2794	.3228	.3662	.4096	.4530	.4964	80	41.6667
8	.0217	.0651	.1085	.1519	.1953	.2387	.2821	.3255	.3689	.4123	.4557	.4991	90	46.8750
9	.0244	.0678	.1112	.1546	.1980	.2414	.2848	.3282	.3716	.4150	.4584	.5018	100	52.0833
10	.0271	.0705	.1139	.1573	.2007	.2441	.2875	.3309	.3743	.4178	.4612	.5046		
11	.0298	.0732	.1166	.1600	.2035	.2469	.2903	.3337	.3771	.4205	.4639	.5073		
12	.0326	.0760	.1194	.1628	.2062	.2496	.2930	.3364	.3798	.4232	.4666	.5100		
13	.0353	.0787	.1221	.1655	.2089	.2523	.2957	.3391	.3825	.4259	.4693	.5127		
14	.0380	.0814	.1248	.1682	.2116	.2550	.2984	.3418	.3852	.4286	.4720	.5154		
15	.0407	.0841	.1275	.1709	.2143	.2577	.3011	.3445	.3879	.4313	.4747	.5181		

Hypotenuse

0	.0000	.0940	.1879	.2819	.3758	.4698	.5638	.6577	.7517	.8456	.9396	1.0335	10	11.2750
1	.0059	.0998	.1938	.2877	.3817	.4757	.5696	.6636	.7575	.8515	.9455	1.0394	20	22.5501
2	.0117	.1057	.1997	.2936	.3876	.4815	.5755	.6695	.7634	.8574	.9513	1.0453	30	33.8251
3	.0176	.1116	.2055	.2995	.3935	.4874	.5814	.6753	.7693	.8632	.9572	1.0512	40	45.1002
4	.0235	.1174	.2114	.3054	.3993	.4933	.5872	.6812	.7752	.8691	.9631	1.0570	50	56.3752
5	.0294	.1233	.2173	.3112	.4052	.4992	.5931	.6871	.7810	.8750	.9689	1.0629	60	67.6503
6	.0352	.1292	.2232	.3171	.4111	.5050	.5990	.6929	.7869	.8809	.9748	1.0688	70	78.9253
7	.0411	.1351	.2290	.3230	.4169	.5109	.6049	.6988	.7928	.8867	.9807	1.0747	80	90.2004
8	.0470	.1409	.2349	.3289	.4228	.5168	.6107	.7047	.7986	.8926	.9866	1.0805	90	101.4754
9	.0529	.1468	.2408	.3347	.4287	.5226	.6166	.7106	.8045	.8985	.9924	1.0864	100	112.7505
10	.0587	.1527	.2466	.3406	.4346	.5285	.6225	.7164	.8104	.9044	.9983	1.0923		
11	.0646	.1586	.2525	.3465	.4404	.5344	.6283	.7223	.8163	.9102	1.0042	1.0981		
12	.0705	.1644	.2584	.3523	.4463	.5403	.6342	.7282	.8221	.9161	1.0101	1.1040		
13	.0763	.1703	.2643	.3582	.4522	.5461	.6403	.7341	.8280	.9220	1.0159	1.1099		
14	.0822	.1762	.2701	.3641	.4580	.5520	.6460	.7399	.8339	.9278	1.0218	1.1158		
15	.0881	.1820	.2760	.3700	.4639	.5579	.6518	.7458	.8398	.9337	1.0277	1.1216		

Equivalent Angle 27° 44' 46"						Altitude					Batter 6 ⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0438	.0877	.1315	.1753	.2192	.2630	.3069	.3507	.3945	.4384	.4822	10	5.2604
1	.0027	.0466	.0904	.1342	.1781	.2219	.2658	.3096	.3534	.3973	.4411	.4849	20	10.5208
2	.0055	.0493	.0932	.1370	.1808	.2247	.2685	.3123	.3562	.4000	.4438	.4877	30	15.7813
3	.0082	.0521	.0959	.1397	.1836	.2274	.2712	.3151	.3589	.4028	.4466	.4904	40	21.0417
4	.0110	.0548	.0986	.1425	.1863	.2301	.2740	.3178	.3617	.4055	.4493	.4932	50	26.3021
5	.0137	.0575	.1014	.1452	.1890	.2329	.2767	.3206	.3644	.4082	.4521	.4959	60	31.5625
6	.0164	.0603	.1041	.1479	.1918	.2356	.2795	.3233	.3671	.4110	.4548	.4986	70	36.8229
7	.0192	.0630	.1069	.1507	.1945	.2384	.2822	.3260	.3699	.4137	.4575	.5014	80	42.0833
8	.0219	.0658	.1096	.1534	.1973	.2411	.2849	.3288	.3726	.4164	.4603	.5041	90	47.3438
9	.0247	.0685	.1123	.1562	.2000	.2438	.2877	.3315	.3754	.4192	.4630	.5069	100	52.6042
10	.0274	.0712	.1151	.1589	.2027	.2466	.2904	.3343	.3781	.4219	.4658	.5096		
11	.0301	.0740	.1178	.1616	.2055	.2493	.2932	.3370	.3808	.4247	.4685	.5123		
12	.0329	.0767	.1206	.1644	.2082	.2521	.2959	.3397	.3836	.4274	.4712	.5151		
13	.0356	.0795	.1233	.1671	.2110	.2548	.2986	.3425	.3863	.4301	.4740	.5178		
14	.0384	.0822	.1260	.1699	.2137	.2575	.3014	.3452	.3891	.4329	.4767	.5206		
15	.0411	.0849	.1288	.1726	.2164	.2603	.3041	.3480	.3918	.4356	.4795	.5233		

Hypotenuse

0	.0000	.0942	.1883	.2825	.3766	.4708	.5650	.6591	.7533	.8474	.9416	1.0358	10	11.2992
1	.0059	.1000	.1942	.2884	.3825	.4767	.5708	.6650	.7592	.8533	.9475	1.0416	20	22.5984
2	.0118	.1059	.2001	.2943	.3884	.4826	.5767	.6709	.7651	.8592	.9534	1.0475	30	33.8976
3	.0177	.1118	.2060	.3001	.3943	.4885	.5826	.6768	.7709	.8651	.9593	1.0534	40	45.1968
4	.0235	.1177	.2119	.3060	.4002	.4943	.5885	.6827	.7768	.8710	.9651	1.0593	50	56.4960
5	.0294	.1236	.2177	.3119	.4061	.5002	.5944	.6885	.7827	.8769	.9710	1.0652	60	67.7952
6	.0353	.1295	.2236	.3178	.4120	.5061	.6003	.6944	.7886	.8828	.9769	1.0711	70	79.0944
7	.0412	.1354	.2295	.3237	.4178	.5120	.6062	.7003	.7945	.8886	.9828	1.0770	80	90.3936
8	.0471	.1412	.2354	.3296	.4237	.5179	.6120	.7062	.8004	.8945	.9887	1.0828	90	101.6928
9	.0530	.1471	.2413	.3354	.4296	.5238	.6179	.7121	.8062	.9004	.9946	1.0887	100	112.9920
10	.0589	.1530	.2472	.3413	.4355	.5297	.6238	.7180	.8121	.9063	1.0005	1.0946		
11	.0647	.1589	.2531	.3472	.4414	.5355	.6297	.7239	.8180	.9122	1.0063	1.1005		
12	.0706	.1648	.2589	.3531	.4473	.5414	.6356	.7297	.8239	.9181	1.0122	1.1064		
13	.0765	.1707	.2648	.3590	.4531	.5473	.6415	.7356	.8298	.9239	1.0181	1.1123		
14	.0824	.1766	.2707	.3649	.4590	.5532	.6474	.7415	.8357	.9298	1.0240	1.1182		
15	.0883	.1824	.2766	.3708	.4649	.5591	.6532	.7474	.8416	.9357	1.0299	1.1240		

Equivalent Angle 27° 58' 46"

Altitude

Batter 6 $\frac{3}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0443	.0885	.1328	.1771	.2214	.2656	.3099	.3542	.3984	.4427	.4870	10	5.3125
1	.0028	.0470	.0913	.1356	.1799	.2241	.2684	.3127	.3569	.4012	.4455	.4897	20	10.6250
2	.0055	.0498	.0941	.1383	.1826	.2269	.2712	.3154	.3597	.4040	.4482	.4925	30	15.9375
3	.0083	.0526	.0968	.1411	.1854	.2297	.2739	.3182	.3625	.4067	.4510	.4953	40	21.2500
4	.0111	.0553	.0996	.1439	.1882	.2324	.2767	.3210	.3652	.4095	.4538	.4980	50	26.5625
5	.0138	.0581	.1024	.1466	.1909	.2352	.2795	.3237	.3680	.4123	.4565	.5008	60	31.8750
6	.0166	.0609	.1051	.1494	.1937	.2380	.2822	.3265	.3708	.4150	.4593	.5036	70	37.1875
7	.0194	.0636	.1079	.1522	.1965	.2407	.2850	.3293	.3735	.4178	.4621	.5063	80	42.5000
8	.0221	.0664	.1107	.1549	.1992	.2435	.2878	.3320	.3763	.4206	.4648	.5091	90	47.8125
9	.0249	.0692	.1134	.1577	.2020	.2463	.2905	.3348	.3791	.4233	.4676	.5119	100	53.1250
10	.0277	.0719	.1162	.1605	.2048	.2490	.2933	.3376	.3818	.4261	.4704	.5146		
11	.0304	.0747	.1190	.1632	.2075	.2518	.2961	.3403	.3846	.4289	.4731	.5174		
12	.0332	.0775	.1217	.1660	.2103	.2546	.2988	.3431	.3874	.4316	.4759	.5202		
13	.0360	.0802	.1245	.1688	.2131	.2573	.3016	.3459	.3901	.4344	.4787	.5229		
14	.0387	.0830	.1273	.1715	.2158	.2601	.3044	.3486	.3929	.4372	.4814	.5257		
15	.0415	.0858	.1300	.1743	.2186	.2629	.3071	.3514	.3957	.4399	.4842	.5285		

Hypothense

0	.0000	.0944	.1887	.2831	.3775	.4718	.5662	.6605	.7549	.8493	.9436	1.0380	10	11.3235
1	.0059	.1003	.1946	.2890	.3833	.4777	.5721	.6664	.7608	.8552	.9495	1.0439	20	22.6471
2	.0118	.1062	.2005	.2949	.3892	.4836	.5780	.6723	.7667	.8611	.9554	1.0498	30	33.9706
3	.0177	.1121	.2064	.3008	.3951	.4895	.5839	.6782	.7726	.8670	.9613	1.0557	40	45.2942
4	.0236	.1180	.2123	.3067	.4010	.4954	.5898	.6841	.7785	.8729	.9672	1.0616	50	56.6177
5	.0295	.1239	.2182	.3126	.4069	.5013	.5957	.6900	.7844	.8788	.9731	1.0675	60	67.9413
6	.0354	.1297	.2241	.3185	.4128	.5072	.6016	.6959	.7903	.8847	.9790	1.0734	70	79.2648
7	.0413	.1356	.2300	.3244	.4187	.5131	.6075	.7018	.7962	.8905	.9849	1.0793	80	90.5884
8	.0472	.1415	.2359	.3303	.4246	.5190	.6134	.7077	.8021	.8964	.9908	1.0852	90	101.9119
9	.0531	.1474	.2418	.3362	.4305	.5249	.6193	.7136	.8080	.9023	.9967	1.0911	100	113.2354
10	.0590	.1533	.2477	.3421	.4364	.5308	.6252	.7195	.8139	.9082	1.0026	1.0970		
11	.0649	.1592	.2536	.3480	.4423	.5367	.6311	.7254	.8198	.9141	1.0085	1.1029		
12	.0708	.1651	.2595	.3539	.4482	.5426	.6369	.7313	.8257	.9200	1.0144	1.1088		
13	.0767	.1710	.2654	.3598	.4541	.5485	.6428	.7372	.8316	.9259	1.0203	1.1147		
14	.0826	.1769	.2713	.3657	.4600	.5544	.6487	.7431	.8375	.9318	1.0262	1.1206		
15	.0885	.1828	.2772	.3716	.4659	.5603	.6546	.7490	.8434	.9377	1.0321	1.1265		

Equivalent Angle 28° 12' 42"						Altitude					Batter 6 ⁷ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0447	.0894	.1341	.1788	.2235	.2682	.3129	.3576	.4023	.4470	.4918	10	5.3646
1	.0028	.0475	.0922	.1369	.1816	.2263	.2710	.3157	.3604	.4051	.4498	.4945	20	10.7292
2	.0056	.0503	.0950	.1397	.1844	.2291	.2738	.3185	.3632	.4079	.4526	.4973	30	16.0938
3	.0084	.0531	.0978	.1425	.1872	.2319	.2766	.3213	.3660	.4107	.4554	.5001	40	21.4583
4	.0112	.0559	.1006	.1453	.1900	.2347	.2794	.3241	.3688	.4135	.4582	.5029	50	26.8229
5	.0140	.0587	.1034	.1481	.1928	.2375	.2822	.3269	.3716	.4163	.4610	.5057	60	32.1875
6	.0168	.0615	.1062	.1509	.1956	.2403	.2850	.3297	.3744	.4191	.4638	.5085	70	37.5521
7	.0196	.0643	.1090	.1537	.1984	.2431	.2878	.3325	.3772	.4219	.4666	.5113	80	42.9167
8	.0224	.0671	.1118	.1565	.2012	.2459	.2906	.3353	.3800	.4247	.4694	.5141	90	48.2813
9	.0251	.0699	.1146	.1593	.2040	.2487	.2934	.3381	.3828	.4275	.4722	.5169	100	53.6458
10	.0279	.0726	.1174	.1621	.2068	.2515	.2962	.3409	.3856	.4303	.4750	.5197		
11	.0307	.0754	.1201	.1648	.2096	.2543	.2990	.3437	.3884	.4331	.4778	.5225		
12	.0335	.0782	.1229	.1676	.2123	.2571	.3018	.3465	.3912	.4359	.4806	.5253		
13	.0363	.0810	.1257	.1704	.2151	.2598	.3046	.3493	.3940	.4387	.4834	.5281		
14	.0391	.0838	.1285	.1732	.2179	.2626	.3073	.3521	.3968	.4415	.4862	.5309		
15	.0419	.0866	.1313	.1760	.2207	.2654	.3101	.3548	.3995	.4443	.4890	.5337		

Hypotenuse

0	.0000	.0946	.1891	.2837	.3783	.4728	.5674	.6620	.7565	.8511	.9457	1.0402	10	11.3481
1	.0059	.1005	.1950	.2896	.3842	.4787	.5733	.6679	.7624	.8570	.9516	1.0462	20	22.6961
2	.0118	.1064	.2010	.2955	.3901	.4847	.5792	.6738	.7684	.8629	.9575	1.0521	30	34.0442
3	.0177	.1123	.2069	.3014	.3960	.4906	.5851	.6797	.7743	.8688	.9634	1.0580	40	45.3923
4	.0236	.1182	.2128	.3073	.4019	.4965	.5910	.6856	.7802	.8747	.9693	1.0639	50	56.7404
5	.0296	.1241	.2187	.3133	.4078	.5024	.5970	.6915	.7861	.8807	.9752	1.0698	60	68.0884
6	.0355	.1300	.2246	.3192	.4137	.5083	.6029	.6974	.7920	.8866	.9811	1.0757	70	79.4365
7	.0414	.1359	.2305	.3251	.4196	.5142	.6088	.7033	.7979	.8925	.9870	1.0816	80	90.7846
8	.0473	.1419	.2364	.3310	.4256	.5201	.6147	.7093	.8038	.8984	.9930	1.0875	90	102.1327
9	.0532	.1478	.2423	.3369	.4315	.5260	.6206	.7152	.8097	.9043	.9989	1.0934	100	113.4807
10	.0591	.1537	.2482	.3428	.4374	.5319	.6265	.7211	.8156	.9102	1.0048	1.0993		
11	.0650	.1596	.2541	.3487	.4433	.5379	.6324	.7270	.8216	.9161	1.0107	1.1053		
12	.0709	.1655	.2601	.3546	.4492	.5438	.6383	.7329	.8275	.9220	1.0166	1.1112		
13	.0768	.1714	.2660	.3605	.4551	.5497	.6442	.7388	.8334	.9279	1.0225	1.1171		
14	.0827	.1773	.2719	.3664	.4610	.5556	.6501	.7447	.8393	.9339	1.0284	1.1230		
15	.0887	.1832	.2778	.3724	.4669	.5615	.6561	.7506	.8452	.9398	1.0343	1.1289		

Equivalent Angle 28° 26' 34"						Altitude					Batter 6½ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0451	.0903	.1354	.1806	.2257	.2708	.3160	.3611	.4063	.4514	.4965	10	5.4167
1	.0028	.0480	.0931	.1382	.1834	.2285	.2737	.3188	.3639	.4091	.4542	.4993	20	10.8333
2	.0056	.0508	.0959	.1411	.1862	.2313	.2765	.3216	.3668	.4119	.4570	.5022	30	16.2500
3	.0085	.0536	.0987	.1439	.1890	.2342	.2793	.3244	.3696	.4147	.4599	.5050	40	21.6667
4	.0113	.0564	.1016	.1467	.1918	.2370	.2821	.3273	.3724	.4175	.4627	.5078	50	27.0833
5	.0141	.0592	.1044	.1495	.1947	.2398	.2849	.3301	.3752	.4204	.4655	.5106	60	32.5000
6	.0169	.0621	.1072	.1523	.1975	.2426	.2878	.3329	.3780	.4232	.4683	.5135	70	37.9167
7	.0197	.0649	.1100	.1552	.2003	.2454	.2906	.3357	.3809	.4260	.4711	.5163	80	43.3333
8	.0226	.0677	.1128	.1580	.2031	.2483	.2934	.3385	.3837	.4288	.4740	.5191	90	48.7500
9	.0254	.0705	.1157	.1608	.2059	.2511	.2962	.3414	.3865	.4316	.4768	.5219	100	54.1667
10	.0282	.0734	.1185	.1636	.2088	.2539	.2990	.3442	.3893	.4345	.4796	.5247		
11	.0310	.0762	.1213	.1664	.2116	.2567	.3019	.3470	.3921	.4373	.4824	.5276		
12	.0339	.0790	.1241	.1693	.2144	.2595	.3047	.3498	.3950	.4401	.4852	.5304		
13	.0367	.0818	.1270	.1721	.2172	.2624	.3075	.3526	.3978	.4429	.4881	.5332		
14	.0395	.0846	.1298	.1749	.2201	.2652	.3103	.3555	.4006	.4457	.4909	.5360		
15	.0423	.0875	.1326	.1777	.2229	.2680	.3132	.3583	.4034	.4486	.4937	.5388		

Hypothénuse

0	.0000	.0948	.1895	.2843	.3791	.4739	.5686	.6634	.7582	.8530	.9477	1.0425	10	11.3728
1	.0059	.1007	.1955	.2902	.3850	.4798	.5746	.6693	.7641	.8589	.9537	1.0484	20	22.7456
2	.0118	.1066	.2014	.2962	.3909	.4857	.5805	.6753	.7700	.8648	.9596	1.0544	30	34.1184
3	.0178	.1125	.2073	.3021	.3969	.4916	.5864	.6812	.7760	.8707	.9655	1.0603	40	45.4911
4	.0237	.1185	.2132	.3080	.4028	.4976	.5923	.6871	.7819	.8767	.9714	1.0662	50	56.8639
5	.0296	.1244	.2192	.3139	.4087	.5035	.5983	.6930	.7878	.8826	.9773	1.0721	60	68.2367
6	.0355	.1303	.2251	.3199	.4146	.5094	.6042	.6990	.7937	.8885	.9833	1.0780	70	79.6095
7	.0415	.1362	.2310	.3258	.4206	.5153	.6101	.7049	.7996	.8944	.9892	1.0840	80	90.9823
8	.0474	.1422	.2369	.3317	.4265	.5213	.6160	.7108	.8056	.9003	.9951	1.0899	90	102.3551
9	.0533	.1481	.2429	.3376	.4324	.5272	.6219	.7167	.8115	.9063	1.0010	1.0958	100	113.7279
10	.0592	.1540	.2488	.3436	.4383	.5331	.6279	.7226	.8174	.9122	1.0070	1.1017		
11	.0652	.1599	.2547	.3495	.4442	.5390	.6338	.7286	.8233	.9181	1.0129	1.1077		
12	.0711	.1659	.2606	.3554	.4502	.5449	.6397	.7345	.8293	.9240	1.0188	1.1136		
13	.0770	.1718	.2665	.3613	.4561	.5509	.6456	.7404	.8352	.9300	1.0247	1.1195		
14	.0829	.1777	.2725	.3672	.4620	.5568	.6516	.7463	.8411	.9359	1.0307	1.1254		
15	.0888	.1836	.2784	.3732	.4679	.5627	.6575	.7523	.8470	.9418	1.0366	1.1314		

Equivalent Angle 28° 40' 23"						Altitude						Batter 6 ⁹ / ₁₆ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0456	.0911	.1367	.1823	.2279	.2734	.3190	.3646	.4102	.4557	.5013	10	5.4688
1	.0028	.0484	.0940	.1396	.1851	.2307	.2763	.3219	.3674	.4130	.4586	.5042	20	10.9375
2	.0057	.0513	.0968	.1424	.1880	.2336	.2791	.3247	.3703	.4159	.4614	.5070	30	16.4063
3	.0085	.0541	.0997	.1453	.1908	.2364	.2820	.3276	.3731	.4187	.4643	.5098	40	21.8750
4	.0114	.0570	.1025	.1481	.1937	.2393	.2848	.3304	.3760	.4215	.4671	.5127	50	27.3438
5	.0142	.0598	.1054	.1510	.1965	.2421	.2877	.3333	.3788	.4244	.4700	.5155	60	32.8125
6	.0171	.0627	.1082	.1538	.1994	.2450	.2905	.3361	.3817	.4272	.4728	.5184	70	38.2813
7	.0199	.0655	.1111	.1567	.2022	.2478	.2934	.3389	.3845	.4301	.4757	.5212	80	43.7500
8	.0228	.0684	.1139	.1595	.2051	.2507	.2962	.3418	.3874	.4329	.4785	.5241	90	49.2188
9	.0256	.0712	.1168	.1624	.2079	.2535	.2991	.3446	.3902	.4358	.4814	.5269	100	54.6875
10	.0285	.0741	.1196	.1652	.2108	.2563	.3019	.3475	.3931	.4386	.4842	.5298		
11	.0313	.0769	.1225	.1681	.2136	.2592	.3048	.3503	.3959	.4415	.4871	.5326		
12	.0342	.0798	.1253	.1709	.2165	.2620	.3076	.3532	.3988	.4443	.4899	.5355		
13	.0370	.0826	.1282	.1737	.2193	.2649	.3105	.3560	.4016	.4472	.4928	.5383		
14	.0399	.0855	.1310	.1166	.2222	.2677	.3133	.3589	.4045	.4500	.4956	.5412		
15	.0427	.0883	.1339	.1794	.2250	.2706	.3162	.3617	.4073	.4529	.4985	.5440		

Hypotenuse

0	.0000	.0950	.1900	.2849	.3799	.4749	.5699	.6649	.7598	.8548	.9498	1.0448	10	11.3977
1	.0059	.1009	.1959	.2909	.3859	.4808	.5758	.6708	.7658	.8608	.9557	1.0507	20	22.7954
2	.0119	.1069	.2018	.2968	.3918	.4868	.5818	.6767	.7717	.8667	.9617	1.0567	30	34.1931
3	.0178	.1128	.2078	.3028	.3977	.4927	.5877	.6827	.7777	.8726	.9676	1.0626	40	45.5907
4	.0237	.1187	.2137	.3087	.4037	.4986	.5936	.6886	.7836	.8786	.9736	1.0685	50	56.9884
5	.0297	.1247	.2196	.3146	.4096	.5046	.5996	.6945	.7895	.8845	.9795	1.0745	60	68.3861
6	.0356	.1306	.2256	.3206	.4155	.5105	.6055	.7005	.7955	.8904	.9854	1.0804	70	79.7838
7	.0416	.1365	.2315	.3265	.4215	.5165	.6114	.7064	.8014	.8964	.9914	1.0863	80	91.1815
8	.0475	.1425	.2375	.3324	.4274	.5224	.6174	.7124	.8073	.9023	.9973	1.0923	90	102.5792
9	.0534	.1484	.2434	.3384	.4333	.5283	.6233	.7183	.8133	.9083	1.0032	1.0982	100	113.9769
10	.0594	.1543	.2493	.3443	.4393	.5343	.6292	.7242	.8192	.9142	1.0092	1.1042		
11	.0653	.1603	.2553	.3502	.4452	.5402	.6352	.7302	.8251	.9201	1.0151	1.1101		
12	.0712	.1662	.2612	.3562	.4512	.5461	.6411	.7361	.8311	.9261	1.0210	1.1160		
13	.0772	.1722	.2671	.3621	.4571	.5521	.6471	.7420	.8370	.9320	1.0270	1.1220		
14	.0831	.1781	.2731	.3681	.4630	.5580	.6530	.7480	.8430	.9379	1.0329	1.1279		
15	.0890	.1840	.2790	.3740	.4690	.5639	.6589	.7539	.8489	.9439	1.0389	1.1338		

Equivalent Angle 28° 54' 08"

Altitude

Batter 6 $\frac{5}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0460	.0920	.1380	.1840	.2300	.2760	.3220	.3681	.4141	.4601	.5061	10	5.5208
1	.0029	.0489	.0949	.1409	.1869	.2329	.2789	.3249	.3709	.4169	.4629	.5089	20	11.0417
2	.0058	.0518	.0978	.1438	.1898	.2358	.2818	.3278	.3738	.4198	.4658	.5118	30	16.5625
3	.0086	.0546	.1006	.1466	.1927	.2387	.2847	.3307	.3767	.4227	.4687	.5147	40	22.0833
4	.0115	.0575	.1035	.1495	.1955	.2415	.2875	.3336	.3796	.4256	.4716	.5176	50	27.6042
5	.0144	.0604	.1064	.1524	.1984	.2444	.2904	.3364	.3824	.4284	.4744	.5205	60	33.1250
6	.0173	.0633	.1093	.1553	.2013	.2473	.2933	.3393	.3853	.4313	.4773	.5233	70	38.6458
7	.0201	.0661	.1121	.1581	.2042	.2502	.2962	.3422	.3882	.4342	.4802	.5262	80	44.1667
8	.0230	.0690	.1150	.1610	.2070	.2530	.2990	.3451	.3911	.4371	.4831	.5291	90	49.6875
9	.0259	.0719	.1179	.1639	.2099	.2559	.3019	.3479	.3939	.4399	.4859	.5320	100	55.2083
10	.0288	.0748	.1208	.1668	.2128	.2588	.3048	.3508	.3968	.4428	.4888	.5348		
11	.0317	.0776	.1236	.1697	.2157	.2617	.3077	.3537	.3997	.4457	.4917	.5377		
12	.0345	.0805	.1265	.1725	.2185	.2645	.3105	.3566	.4026	.4486	.4946	.5406		
13	.0374	.0834	.1294	.1754	.2214	.2674	.3134	.3594	.4054	.4514	.4975	.5435		
14	.0403	.0863	.1323	.1783	.2243	.2703	.3163	.3623	.4083	.4543	.5003	.5463		
15	.0431	.0891	.1351	.1812	.2272	.2732	.3192	.3652	.4112	.4572	.5032	.5492		

Hypotenuse

0	.0000	.0952	.1904	.2856	.3808	.4759	.5711	.6663	.7615	.8567	.9519	1.0471	10	11.4228
1	.0059	.1011	.1963	.2915	.3867	.4819	.5771	.6723	.7675	.8627	.9578	1.0530	20	22.8455
2	.0119	.1071	.2023	.2975	.3927	.4878	.5830	.6782	.7734	.8686	.9638	1.0590	30	34.2683
3	.0178	.1130	.2082	.3034	.3986	.4938	.5890	.6842	.7794	.8746	.9697	1.0649	40	45.6911
4	.0238	.1190	.2142	.3094	.4046	.4997	.5949	.6901	.7853	.8805	.9757	1.0709	50	57.1138
5	.0297	.1249	.2201	.3153	.4105	.5057	.6009	.6961	.7913	.8865	.9816	1.0768	60	68.5366
6	.0357	.1309	.2261	.3213	.4165	.5116	.6068	.7020	.7972	.8924	.9876	1.0828	70	79.9594
7	.0416	.1368	.2320	.3272	.4224	.5176	.6128	.7080	.8032	.8984	.9935	1.0887	80	91.3821
8	.0476	.1428	.2380	.3332	.4284	.5235	.6187	.7139	.8091	.9043	.9995	1.0947	90	102.8049
9	.0535	.1487	.2439	.3391	.4343	.5295	.6247	.7199	.8151	.9103	1.0054	1.1006	100	114.2277
10	.0595	.1547	.2499	.3451	.4403	.5354	.6306	.7258	.8210	.9162	1.0114	1.1066		
11	.0654	.1606	.2558	.3510	.4462	.5414	.6366	.7318	.8270	.9222	1.0173	1.1125		
12	.0714	.1666	.2618	.3570	.4522	.5473	.6425	.7377	.8329	.9281	1.0233	1.1185		
13	.0773	.1725	.2677	.3629	.4581	.5533	.6485	.7437	.8389	.9340	1.0292	1.1244		
14	.0833	.1785	.2737	.3689	.4640	.5592	.6544	.7496	.8448	.9400	1.0352	1.1304		
15	.0892	.1844	.2796	.3748	.4700	.5652	.6604	.7556	.8508	.9459	1.0411	1.1363		

Equivalent Angle 29° 07' 50"						Altitude					Batter 6 ¹¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0464	.0929	.1393	.1858	.2322	.2786	.3251	.3715	.4180	.4644	.5109	10	5.5729
1	.0029	.0493	.0958	.1422	.1887	.2351	.2815	.3280	.3744	.4209	.4673	.5138	20	11.1458
2	.0058	.0522	.0987	.1451	.1916	.2380	.2845	.3309	.3773	.4238	.4702	.5167	30	16.7188
3	.0087	.0552	.1016	.1480	.1945	.2409	.2874	.3338	.3802	.4267	.4731	.5196	40	22.2917
4	.0116	.0581	.1045	.1509	.1974	.2438	.2903	.3367	.3831	.4296	.4760	.5225	50	27.8646
5	.0145	.0610	.1074	.1538	.2003	.2467	.2932	.3396	.3860	.4325	.4789	.5254	60	33.4375
6	.0174	.0639	.1103	.1567	.2032	.2496	.2961	.3425	.3889	.4354	.4818	.5283	70	39.0104
7	.0203	.0668	.1132	.1596	.2061	.2525	.2990	.3454	.3918	.4383	.4847	.5312	80	44.5833
8	.0232	.0697	.1161	.1625	.2090	.2554	.3019	.3483	.3947	.4412	.4876	.5341	90	50.1563
9	.0261	.0726	.1190	.1654	.2119	.2583	.3048	.3512	.3977	.4441	.4905	.5370	100	55.7292
10	.0290	.0755	.1219	.1683	.2148	.2612	.3077	.3541	.4006	.4470	.4934	.5399		
11	.0319	.0784	.1248	.1713	.2177	.2641	.3106	.3570	.4035	.4499	.4963	.5428		
12	.0348	.0813	.1277	.1742	.2206	.2670	.3135	.3599	.4064	.4528	.4992	.5457		
13	.0377	.0842	.1306	.1771	.2235	.2699	.3164	.3628	.4093	.4557	.5021	.5486		
14	.0406	.0871	.1335	.1800	.2264	.2728	.3193	.3657	.4122	.4586	.5050	.5515		
15	.0435	.0900	.1364	.1829	.2293	.2757	.3222	.3686	.4151	.4615	.5079	.5544		

Hypotenuse														
0	.0000	.0954	.1908	.2862	.3816	.4770	.5724	.6678	.7632	.8586	.9540	1.0494	10	11.4480
1	.0060	.1014	.1968	.2922	.3876	.4830	.5784	.6738	.7692	.8646	.9600	1.0554	20	22.8961
2	.0119	.1073	.2027	.2981	.3935	.4889	.5843	.6797	.7751	.8705	.9659	1.0613	30	34.3441
3	.0179	.1133	.2087	.3041	.3995	.4949	.5903	.6857	.7811	.8765	.9719	1.0673	40	45.7921
4	.0239	.1193	.2147	.3101	.4055	.5009	.5963	.6917	.7871	.8825	.9779	1.0733	50	57.2402
5	.0298	.1252	.2206	.3160	.4114	.5068	.6022	.6976	.7930	.8884	.9838	1.0792	60	68.6882
6	.0358	.1312	.2266	.3220	.4174	.5128	.6082	.7036	.7990	.8944	.9898	1.0852	70	80.1362
7	.0417	.1371	.2325	.3279	.4233	.5187	.6141	.7095	.8049	.9003	.9957	1.0911	80	91.5842
8	.0477	.1431	.2385	.3339	.4293	.5247	.6201	.7155	.8109	.9063	1.0017	1.0971	90	103.0323
9	.0537	.1491	.2445	.3399	.4353	.5307	.6261	.7215	.8169	.9123	1.0077	1.1031	100	114.4803
10	.0596	.1550	.2504	.3458	.4412	.5366	.6320	.7274	.8228	.9182	1.0136	1.1090		
11	.0656	.1610	.2564	.3518	.4472	.5426	.6380	.7334	.8288	.9242	1.0196	1.1150		
12	.0716	.1670	.2624	.3578	.4532	.5486	.6440	.7394	.8348	.9302	1.0256	1.1210		
13	.0775	.1729	.2683	.3637	.4591	.5545	.6499	.7453	.8407	.9361	1.0315	1.1269		
14	.0835	.1789	.2743	.3697	.4651	.5605	.6559	.7513	.8467	.9421	1.0375	1.1329		
15	.0894	.1848	.2802	.3756	.4710	.5664	.6618	.7572	.8526	.9480	1.0434	1.1388		

Equivalent Angle 29° 21' 28"

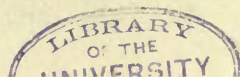
Altitude

Batter 6 $\frac{3}{4}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0469	.0938	.1406	.1875	.2344	.2813	.3281	.3750	.4219	.4688	.5156	10	5.6250
1	.0029	.0498	.0967	.1436	.1904	.2373	.2842	.3311	.3779	.4248	.4717	.5186	20	11.2500
2	.0059	.0527	.0996	.1465	.1934	.2402	.2871	.3340	.3809	.4277	.4746	.5215	30	16.8750
3	.0088	.0557	.1025	.1494	.1963	.2432	.2900	.3369	.3838	.4307	.4775	.5244	40	22.5000
4	.0117	.0586	.1055	.1523	.1992	.2461	.2930	.3398	.3867	.4336	.4805	.5273	50	28.1250
5	.0146	.0615	.1084	.1553	.2021	.2490	.2959	.3428	.3896	.4365	.4834	.5303	60	33.7500
6	.0176	.0645	.1113	.1582	.2051	.2520	.2988	.3457	.3926	.4395	.4863	.5332	70	39.3750
7	.0205	.0674	.1143	.1611	.2080	.2549	.3018	.3486	.3955	.4424	.4893	.5361	80	45.0000
8	.0234	.0703	.1172	.1641	.2109	.2578	.3047	.3516	.3984	.4453	.4922	.5391	90	50.6250
9	.0264	.0732	.1201	.1670	.2139	.2607	.3076	.3545	.4014	.4482	.4951	.5420	100	56.2500
10	.0293	.0762	.1230	.1699	.2168	.2637	.3105	.3574	.4043	.4512	.4980	.5449		
11	.0322	.0791	.1260	.1729	.2197	.2666	.3135	.3604	.4072	.4541	.5010	.5479		
12	.0352	.0820	.1289	.1758	.2227	.2695	.3164	.3633	.4102	.4570	.5039	.5508		
13	.0381	.0850	.1318	.1787	.2256	.2725	.3193	.3662	.4131	.4600	.5068	.5537		
14	.0410	.0879	.1348	.1816	.2285	.2754	.3223	.3691	.4160	.4629	.5098	.5566		
15	.0439	.0908	.1377	.1846	.2314	.2783	.3252	.3721	.4189	.4658	.5127	.5596		

Hypotenuse

0	.0000	.0956	.1912	.2868	.3824	.4781	.5737	.6693	.7649	.8605	.9561	1.0517	10	11.4735
1	.0060	.1016	.1972	.2928	.3884	.4840	.5796	.6753	.7709	.8665	.9621	1.0577	20	22.9469
2	.0120	.1076	.2032	.2988	.3944	.4900	.5856	.6812	.7768	.8725	.9681	1.0637	30	34.4204
3	.0179	.1135	.2092	.3048	.4004	.4960	.5916	.6872	.7828	.8784	.9741	1.0697	40	45.8939
4	.0239	.1195	.2151	.3107	.4064	.5020	.5976	.6932	.7888	.8844	.9800	1.0756	50	57.3674
5	.0299	.1255	.2211	.3167	.4123	.5079	.6036	.6992	.7948	.8904	.9860	1.0816	60	68.8408
6	.0359	.1315	.2271	.3227	.4183	.5139	.6095	.7051	.8008	.8964	.9920	1.0876	70	80.3143
7	.0418	.1374	.2331	.3287	.4243	.5199	.6155	.7111	.8067	.9023	.9980	1.0936	80	91.7878
8	.0478	.1434	.2390	.3346	.4303	.5259	.6215	.7171	.8127	.9083	1.0039	1.0995	90	103.2613
9	.0538	.1494	.2450	.3406	.4362	.5318	.6275	.7231	.8187	.9143	1.0099	1.1055	100	114.7347
10	.0598	.1554	.2510	.3466	.4422	.5378	.6334	.7290	.8247	.9203	1.0159	1.1115		
11	.0657	.1613	.2570	.3526	.4482	.5438	.6394	.7350	.8306	.9262	1.0219	1.1175		
12	.0717	.1673	.2629	.3585	.4542	.5498	.6454	.7410	.8366	.9322	1.0278	1.1234		
13	.0777	.1733	.2689	.3645	.4601	.5557	.6514	.7470	.8426	.9382	1.0338	1.1294		
14	.0837	.1793	.2749	.3705	.4661	.5617	.6573	.7529	.8486	.9442	1.0398	1.1354		
15	.0896	.1852	.2809	.3765	.4721	.5677	.6633	.7589	.8545	.9501	1.0458	1.1414		



Equivalent Angle 29° 35' 03"						Altitude					Batter 6 $\frac{1}{8}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0473	.0946	.1419	.1892	.2365	.2839	.3312	.3785	.4258	.4731	.5204	10	5.6771
1	.0030	.0503	.0976	.1449	.1922	.2395	.2868	.3341	.3814	.4287	.4760	.5234	20	11.3542
2	.0059	.0532	.1005	.1478	.1951	.2425	.2898	.3371	.3844	.4317	.4790	.5263	30	17.0313
3	.0089	.0562	.1035	.1508	.1981	.2454	.2927	.3400	.3873	.4347	.4820	.5293	40	22.7083
4	.0118	.0591	.1064	.1538	.2011	.2484	.2957	.3430	.3903	.4376	.4849	.5322	50	28.3854
5	.0148	.0621	.1094	.1567	.2040	.2513	.2986	.3459	.3933	.4406	.4879	.5352	60	34.0625
6	.0177	.0650	.1124	.1597	.2070	.2543	.3016	.3489	.3962	.4435	.4908	.5381	70	39.7396
7	.0207	.0680	.1153	.1626	.2099	.2572	.3046	.3519	.3992	.4465	.4938	.5411	80	45.4167
8	.0237	.0710	.1183	.1656	.2129	.2602	.3075	.3548	.4021	.4494	.4967	.5441	90	51.0938
9	.0266	.0739	.1212	.1685	.2158	.2632	.3105	.3578	.4051	.4524	.4997	.5470	100	56.7708
10	.0296	.0769	.1242	.1715	.2188	.2661	.3134	.3607	.4080	.4553	.5027	.5500		
11	.0325	.0798	.1271	.1745	.2218	.2691	.3164	.3637	.4110	.4583	.5056	.5529		
12	.0355	.0828	.1301	.1774	.2247	.2720	.3193	.3666	.4140	.4613	.5086	.5559		
13	.0384	.0857	.1331	.1804	.2277	.2750	.3223	.3696	.4169	.4642	.5115	.5588		
14	.0414	.0887	.1360	.1833	.2306	.2779	.3252	.3726	.4199	.4672	.5145	.5618		
15	.0444	.0917	.1390	.1863	.2336	.2809	.3282	.3755	.4228	.4701	.5174	.5648		

Hypothénuse

0	.0000	.0958	.1917	.2875	.3833	.4791	.5750	.6708	.7666	.8624	.9583	1.0541	10	11.4991
1	.0060	.1018	.1976	.2935	.3893	.4851	.5809	.6768	.7726	.8684	.9642	1.0601	20	22.9982
2	.0120	.1078	.2036	.2995	.3953	.4911	.5869	.6828	.7786	.8744	.9702	1.0661	30	34.4973
3	.0180	.1138	.2096	.3054	.4013	.4971	.5929	.6887	.7846	.8804	.9762	1.0721	40	45.9964
4	.0240	.1198	.2156	.3114	.4073	.5031	.5989	.6947	.7906	.8864	.9822	1.0780	50	57.4955
5	.0299	.1258	.2216	.3174	.4132	.5091	.6049	.7007	.7966	.8924	.9882	1.0840	60	68.9946
6	.0359	.1318	.2276	.3234	.4192	.5151	.6109	.7067	.8025	.8984	.9942	1.0900	70	80.4937
7	.0419	.1377	.2336	.3294	.4252	.5211	.6169	.7127	.8085	.9044	1.0002	1.0960	80	91.9928
8	.0479	.1437	.2396	.3354	.4312	.5270	.6229	.7187	.8145	.9103	1.0062	1.1020	90	103.4919
9	.0539	.1497	.2456	.3414	.4372	.5330	.6289	.7247	.8205	.9163	1.0122	1.1080	100	114.9910
10	.0599	.1557	.2515	.3474	.4432	.5390	.6348	.7307	.8265	.9223	1.0181	1.1140		
11	.0659	.1617	.2575	.3534	.4492	.5450	.6408	.7367	.8325	.9283	1.0241	1.1200		
12	.0719	.1677	.2635	.3593	.4552	.5510	.6468	.7427	.8385	.9343	1.0301	1.1260		
13	.0779	.1737	.2695	.3653	.4612	.5570	.6528	.7486	.8445	.9403	1.0361	1.1319		
14	.0838	.1797	.2755	.3713	.4672	.5630	.6588	.7546	.8505	.9463	1.0421	1.1379		
15	.0898	.1857	.2815	.3773	.4731	.5690	.6648	.7606	.8564	.9523	1.0481	1.1439		

Equivalent Angle 29° 48' 33"

Altitude

Batter 6 $\frac{7}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0477	.0955	.1432	.1910	.2387	.2865	.3342	.3819	.4297	.4774	.5252	10 5.7292
1	.0030	.0507	.0985	.1462	.1940	.2417	.2894	.3372	.3849	.4327	.4804	.5282	20 11.4583
2	.0060	.0537	.1015	.1492	.1969	.2447	.2924	.3402	.3879	.4357	.4834	.5311	30 17.1875
3	.0090	.0567	.1044	.1522	.1999	.2477	.2954	.3432	.3909	.4386	.4864	.5341	40 22.9167
4	.0119	.0597	.1074	.1552	.2029	.2507	.2984	.3461	.3939	.4416	.4894	.5371	50 28.6458
5	.0149	.0627	.1104	.1581	.2059	.2536	.3014	.3491	.3969	.4446	.4924	.5401	60 34.3750
6	.0179	.0656	.1134	.1611	.2089	.2566	.3044	.3521	.3998	.4476	.4953	.5431	70 40.1042
7	.0209	.0686	.1164	.1641	.2119	.2596	.3073	.3551	.4028	.4506	.4983	.5461	80 45.8333
8	.0239	.0716	.1194	.1671	.2148	.2626	.3103	.3581	.4058	.4536	.5013	.5490	90 51.5625
9	.0269	.0746	.1223	.1701	.2178	.2656	.3133	.3611	.4088	.4565	.5043	.5520	100 57.2917
10	.0298	.0776	.1253	.1731	.2208	.2686	.3163	.3640	.4118	.4595	.5073	.5550	
11	.0328	.0806	.1283	.1761	.2238	.2715	.3193	.3670	.4148	.4625	.5103	.5580	
12	.0358	.0836	.1313	.1790	.2268	.2745	.3223	.3700	.4178	.4655	.5132	.5610	
13	.0388	.0865	.1343	.1820	.2298	.2775	.3252	.3730	.4207	.4685	.5162	.5640	
14	.0418	.0895	.1373	.1850	.2327	.2805	.3282	.3760	.4237	.4715	.5192	.5669	
15	.0448	.0925	.1402	.1880	.2357	.2835	.3312	.3790	.4267	.4744	.5222	.5699	

Hypotenuse

0	.0000	.0960	.1921	.2881	.3842	.4802	.5762	.6723	.7683	.8644	.9604	1.0564	10 11.5249
1	.0060	.1020	.1981	.2941	.3902	.4862	.5822	.6783	.7743	.8704	.9664	1.0625	20 23.0498
2	.0120	.1080	.2041	.3001	.3962	.4922	.5883	.6843	.7803	.8764	.9724	1.0685	30 34.5747
3	.0180	.1140	.2101	.3061	.4022	.4982	.5943	.6903	.7863	.8824	.9784	1.0745	40 46.0996
4	.0240	.1201	.2161	.3121	.4082	.5042	.6003	.6963	.7923	.8884	.9844	1.0805	50 57.6245
5	.0300	.1261	.2221	.3181	.4142	.5102	.6063	.7023	.7983	.8944	.9904	1.0865	60 69.1494
6	.0360	.1321	.2281	.3241	.4202	.5162	.6123	.7083	.8043	.9004	.9964	1.0925	70 80.6743
7	.0420	.1381	.2341	.3301	.4262	.5222	.6183	.7143	.8103	.9064	1.0024	1.0985	80 92.1992
8	.0480	.1441	.2401	.3361	.4322	.5282	.6243	.7203	.8163	.9124	1.0084	1.1045	90 103.7241
9	.0540	.1501	.2461	.3421	.4382	.5342	.6303	.7263	.8223	.9184	1.0144	1.1105	100 115.2490
10	.0600	.1561	.2521	.3481	.4442	.5402	.6363	.7323	.8284	.9244	1.0204	1.1165	
11	.0660	.1621	.2581	.3542	.4502	.5462	.6423	.7383	.8344	.9304	1.0264	1.1225	
12	.0720	.1681	.2641	.3602	.4562	.5522	.6483	.7443	.8404	.9364	1.0324	1.1285	
13	.0780	.1741	.2701	.3662	.4622	.5582	.6543	.7503	.8464	.9424	1.0384	1.1345	
14	.0840	.1801	.2761	.3722	.4682	.5642	.6603	.7563	.8524	.9484	1.0444	1.1405	
15	.0900	.1861	.2821	.3782	.4742	.5702	.6663	.7623	.8584	.9544	1.0504	1.1465	

Equivalent Angle 30° or 59"						Altitude				Batter 6 ¹ / ₁₆ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0482	.0964	.1445	.1927	.2409	.2891	.3372	.3854	.4336	.4818	.5299	10	5.7813
1	.0030	.0512	.0994	.1475	.1957	.2439	.2921	.3403	.3884	.4366	.4848	.5330	20	11.5625
2	.0060	.0542	.1024	.1506	.1987	.2469	.2951	.3433	.3914	.4396	.4878	.5360	30	17.3438
3	.0090	.0572	.1054	.1536	.2017	.2499	.2981	.3463	.3944	.4426	.4908	.5390	40	23.1250
4	.0120	.0602	.1084	.1566	.2048	.2529	.3011	.3493	.3975	.4456	.4938	.5420	50	28.9063
5	.0151	.0632	.1114	.1596	.2078	.2559	.3041	.3523	.4005	.4486	.4968	.5450	60	34.6875
6	.0181	.0662	.1144	.1626	.2108	.2590	.3071	.3553	.4035	.4517	.4998	.5480	70	40.4688
7	.0211	.0693	.1174	.1656	.2138	.2620	.3101	.3583	.4065	.4547	.5028	.5510	80	46.2500
8	.0241	.0723	.1204	.1686	.2168	.2650	.3132	.3613	.4095	.4577	.5059	.5540	90	52.0313
9	.0271	.0753	.1235	.1716	.2198	.2680	.3162	.3643	.4125	.4607	.5089	.5570	100	57.8125
10	.0301	.0783	.1265	.1746	.2228	.2710	.3192	.3674	.4155	.4637	.5119	.5601		
11	.0331	.0813	.1295	.1777	.2258	.2740	.3222	.3704	.4185	.4667	.5149	.5631		
12	.0361	.0843	.1325	.1807	.2288	.2770	.3252	.3734	.4215	.4697	.5179	.5661		
13	.0391	.0873	.1355	.1837	.2319	.2800	.3282	.3764	.4246	.4727	.5209	.5691		
14	.0422	.0903	.1385	.1867	.2349	.2830	.3312	.3794	.4276	.4757	.5239	.5721		
15	.0452	.0933	.1415	.1897	.2379	.2861	.3342	.3824	.4306	.4788	.5269	.5751		

Hypotenuse

0	.0000	.0963	.1925	.2888	.3850	.4813	.5775	.6738	.7701	.8663	.9626	1.0588	10	11.5509
1	.0060	.1023	.1985	.2948	.3910	.4873	.5836	.6798	.7761	.8723	.9686	1.0648	20	23.1018
2	.0120	.1083	.2045	.3008	.3971	.4933	.5896	.6858	.7821	.8783	.9746	1.0709	30	34.6526
3	.0180	.1143	.2106	.3068	.4031	.4993	.5956	.6918	.7881	.8844	.9806	1.0769	40	46.2035
4	.0241	.1203	.2166	.3128	.4091	.5054	.6016	.6979	.7941	.8904	.9866	1.0829	50	57.7544
5	.0301	.1263	.2226	.3189	.4151	.5114	.6076	.7039	.8001	.8964	.9927	1.0889	60	69.3053
6	.0361	.1324	.2286	.3249	.4211	.5174	.6136	.7099	.8062	.9024	.9987	1.0949	70	80.8562
7	.0421	.1384	.2346	.3309	.4271	.5234	.6197	.7159	.8122	.9084	1.0047	1.1009	80	92.4070
8	.0481	.1444	.2406	.3369	.4332	.5294	.6257	.7219	.8182	.9144	1.0107	1.1070	90	103.9579
9	.0541	.1504	.2467	.3429	.4392	.5354	.6317	.7279	.8242	.9205	1.0167	1.1130	100	115.5088
10	.0602	.1564	.2527	.3489	.4452	.5414	.6377	.7340	.8302	.9265	1.0227	1.1190		
11	.0662	.1624	.2587	.3549	.4512	.5475	.6437	.7400	.8362	.9325	1.0288	1.1250		
12	.0722	.1685	.2647	.3610	.4572	.5535	.6497	.7460	.8423	.9385	1.0348	1.1310		
13	.0782	.1745	.2707	.3670	.4632	.5595	.6558	.7520	.8483	.9445	1.0408	1.1370		
14	.0842	.1805	.2767	.3730	.4693	.5655	.6618	.7580	.8543	.9505	1.0468	1.1431		
15	.0902	.1865	.2828	.3790	.4753	.5715	.6678	.7640	.8603	.9566	1.0528	1.1491		

Equivalent Angle 30° 15' 22"						Altitude						Batter 7 to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0486	.0972	.1458	.1944	.2431	.2917	.3403	.3889	.4375	.4861	.5347	10	5.8333
1	.0030	.0516	.1003	.1489	.1975	.2461	.2947	.3433	.3919	.4405	.4891	.5378	20	11.6667
2	.0061	.0547	.1033	.1519	.2005	.2491	.2977	.3464	.3950	.4436	.4922	.5408	30	17.5000
3	.0091	.0577	.1063	.1549	.2036	.2522	.3008	.3494	.3980	.4466	.4952	.5438	40	23.3333
4	.0122	.0608	.1094	.1580	.2066	.2552	.3038	.3524	.4010	.4497	.4983	.5469	50	29.1667
5	.0152	.0638	.1124	.1610	.2096	.2582	.3069	.3555	.4041	.4527	.5013	.5499	60	35.0000
6	.0182	.0668	.1155	.1641	.2127	.2613	.3099	.3585	.4071	.4557	.5043	.5530	70	40.8333
7	.0213	.0699	.1185	.1671	.2157	.2643	.3129	.3615	.4102	.4588	.5074	.5560	80	46.6667
8	.0243	.0729	.1215	.1701	.2188	.2674	.3160	.3646	.4132	.4618	.5104	.5590	90	52.5000
9	.0273	.0760	.1246	.1732	.2218	.2704	.3190	.3676	.4162	.4648	.5135	.5621	100	58.3333
10	.0304	.0790	.1276	.1762	.2248	.2734	.3220	.3707	.4193	.4679	.5165	.5651		
11	.0334	.0820	.1306	.1793	.2279	.2765	.3251	.3737	.4223	.4709	.5195	.5681		
12	.0365	.0851	.1337	.1823	.2309	.2795	.3281	.3767	.4253	.4740	.5226	.5712		
13	.0395	.0881	.1367	.1853	.2339	.2826	.3312	.3798	.4284	.4770	.5256	.5742		
14	.0425	.0911	.1398	.1884	.2370	.2856	.3342	.3828	.4314	.4800	.5286	.5773		
15	.0456	.0942	.1428	.1914	.2400	.2886	.3372	.3859	.4345	.4831	.5317	.5803		

Hypotenuse

0	.0000	.0965	.1930	.2894	.3859	.4824	.5789	.6753	.7718	.8683	.9648	1.0612	10	11.5770
1	.0060	.1025	.1990	.2955	.3919	.4884	.5849	.6814	.7778	.8743	.9708	1.0673	20	23.1541
2	.0121	.1085	.2050	.3015	.3980	.4944	.5909	.6874	.7839	.8803	.9768	1.0733	30	34.7311
3	.0181	.1146	.2110	.3075	.4040	.5005	.5969	.6934	.7899	.8864	.9828	1.0793	40	46.3081
4	.0241	.1206	.2171	.3135	.4100	.5065	.6030	.6994	.7959	.8924	.9889	1.0853	50	57.8852
5	.0301	.1266	.2231	.3196	.4160	.5125	.6090	.7055	.8020	.8984	.9949	1.0914	60	69.4622
6	.0362	.1327	.2291	.3256	.4221	.5186	.6150	.7115	.8080	.9045	1.0009	1.0974	70	81.0393
7	.0422	.1387	.2352	.3316	.4281	.5246	.6211	.7175	.8140	.9105	1.0070	1.1034	80	92.6163
8	.0482	.1447	.2412	.3377	.4341	.5306	.6271	.7236	.8200	.9165	1.0130	1.1095	90	104.1933
9	.0543	.1507	.2472	.3437	.4402	.5366	.6331	.7296	.8261	.9225	1.0190	1.1155	100	115.7704
10	.0603	.1568	.2532	.3497	.4462	.5427	.6391	.7356	.8321	.9286	1.0251	1.1215		
11	.0663	.1628	.2593	.3558	.4522	.5487	.6452	.7417	.8381	.9346	1.0311	1.1276		
12	.0724	.1688	.2653	.3618	.4583	.5547	.6512	.7477	.8442	.9406	1.0371	1.1336		
13	.0784	.1749	.2713	.3678	.4643	.5608	.6572	.7537	.8502	.9467	1.0431	1.1396		
14	.0844	.1809	.2774	.3738	.4703	.5668	.6633	.7597	.8562	.9527	1.0492	1.1456		
15	.0904	.1869	.2834	.3799	.4763	.5728	.6693	.7658	.8622	.9587	1.0552	1.1517		

Equivalent Angle 30° 28' 43"						Altitude					Batter 7 ¹ / ₈ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0490	.0981	.1471	.1962	.2452	.2943	.3433	.3924	.4414	.4905	.5395	10	5.8854
1	.0031	.0521	.1012	.1502	.1992	.2483	.2973	.3464	.3954	.4445	.4935	.5426	20	11.7708
2	.0061	.0552	.1042	.1533	.2023	.2514	.3004	.3494	.3985	.4475	.4966	.5456	30	17.6563
3	.0092	.0582	.1073	.1563	.2054	.2544	.3035	.3525	.4016	.4506	.4996	.5487	40	23.5417
4	.0123	.0613	.1104	.1594	.2084	.2575	.3065	.3556	.4046	.4537	.5027	.5518	50	29.4271
5	.0153	.0644	.1134	.1625	.2115	.2606	.3096	.3586	.4077	.4567	.5058	.5548	60	35.3125
6	.0184	.0674	.1165	.1655	.2146	.2636	.3127	.3617	.4108	.4598	.5088	.5579	70	41.1979
7	.0215	.0705	.1195	.1686	.2176	.2667	.3157	.3648	.4138	.4629	.5119	.5610	80	47.0833
8	.0245	.0736	.1226	.1717	.2207	.2697	.3188	.3678	.4169	.4659	.5150	.5640	90	52.9688
9	.0276	.0766	.1257	.1747	.2238	.2728	.3219	.3709	.4199	.4690	.5180	.5671	100	58.8542
10	.0307	.0797	.1287	.1778	.2268	.2759	.3249	.3740	.4230	.4721	.5211	.5701		
11	.0337	.0828	.1318	.1809	.2299	.2789	.3280	.3770	.4261	.4751	.5242	.5732		
12	.0368	.0858	.1349	.1839	.2330	.2820	.3311	.3801	.4291	.4782	.5272	.5763		
13	.0398	.0889	.1379	.1870	.2360	.2851	.3341	.3832	.4322	.4813	.5303	.5793		
14	.0429	.0920	.1410	.1900	.2391	.2881	.3372	.3862	.4353	.4843	.5334	.5824		
15	.0460	.0950	.1441	.1931	.2422	.2912	.3403	.3893	.4383	.4874	.5364	.5855		

Hypotenuse

0	.0000	.0967	.1934	.2901	.3868	.4835	.5802	.6769	.7736	.8703	.9669	1.0636	10	11.6034
1	.0060	.1027	.1994	.2961	.3928	.4895	.5862	.6829	.7796	.8763	.9730	1.0697	20	23.2067
2	.0121	.1088	.2055	.3022	.3989	.4956	.5923	.6889	.7856	.8823	.9790	1.0757	30	34.8101
3	.0181	.1148	.2115	.3082	.4049	.5016	.5983	.6950	.7917	.8884	.9851	1.0818	40	46.4135
4	.0242	.1209	.2176	.3143	.4110	.5076	.6043	.7010	.7977	.8944	.9911	1.0878	50	58.0168
5	.0302	.1269	.2236	.3203	.4170	.5137	.6104	.7071	.8038	.9005	.9972	1.0939	60	69.6202
6	.0363	.1330	.2296	.3263	.4230	.5197	.6164	.7131	.8098	.9065	1.0032	1.0999	70	81.2236
7	.0423	.1390	.2357	.3324	.4291	.5258	.6225	.7192	.8159	.9126	1.0093	1.1059	80	92.8269
8	.0483	.1450	.2417	.3384	.4351	.5318	.6285	.7252	.8219	.9186	1.0153	1.1120	90	104.4303
9	.0544	.1511	.2478	.3445	.4412	.5379	.6346	.7313	.8279	.9246	1.0213	1.1180	100	116.0337
10	.0604	.1571	.2538	.3505	.4472	.5439	.6406	.7373	.8340	.9307	1.0274	1.1241		
11	.0665	.1632	.2599	.3566	.4533	.5500	.6466	.7433	.8400	.9367	1.0334	1.1301		
12	.0725	.1692	.2659	.3626	.4593	.5560	.6527	.7494	.8461	.9428	1.0395	1.1362		
13	.0786	.1753	.2720	.3686	.4653	.5620	.6587	.7554	.8521	.9488	1.0455	1.1422		
14	.0846	.1813	.2780	.3747	.4714	.5681	.6648	.7615	.8582	.9549	1.0516	1.1482		
15	.0907	.1873	.2840	.3807	.4774	.5741	.6708	.7675	.8642	.9609	1.0576	1.1543		

Equivalent Angle 30° 41' 58"						Altitude						Batter 7 $\frac{1}{8}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0495	.0990	.1484	.1979	.2474	.2969	.3464	.3958	.4453	.4948	.5443	10	5.9375
1	.0031	.0526	.1021	.1515	.2010	.2505	.3000	.3494	.3989	.4484	.4979	.5474	20	11.8750
2	.0062	.0557	.1051	.1546	.2041	.2536	.3031	.3525	.4020	.4515	.5010	.5505	30	17.8125
3	.0093	.0588	.1082	.1577	.2072	.2567	.3062	.3556	.4051	.4546	.5041	.5535	40	23.7500
4	.0124	.0618	.1113	.1608	.2103	.2598	.3092	.3587	.4082	.4577	.5072	.5566	50	29.6875
5	.0155	.0649	.1144	.1639	.2134	.2629	.3123	.3618	.4113	.4608	.5103	.5597	60	35.6250
6	.0186	.0680	.1175	.1670	.2165	.2660	.3154	.3649	.4144	.4639	.5133	.5628	70	41.5625
7	.0216	.0711	.1206	.1701	.2196	.2690	.3185	.3680	.4175	.4670	.5164	.5659	80	47.5000
8	.0247	.0742	.1237	.1732	.2227	.2721	.3216	.3711	.4206	.4701	.5195	.5690	90	53.4375
9	.0278	.0773	.1268	.1763	.2257	.2752	.3247	.3742	.4237	.4731	.5226	.5721	100	59.3750
10	.0309	.0804	.1299	.1794	.2288	.2783	.3278	.3773	.4268	.4762	.5257	.5752		
11	.0340	.0835	.1330	.1825	.2319	.2814	.3309	.3804	.4299	.4793	.5288	.5783		
12	.0371	.0866	.1361	.1855	.2350	.2845	.3340	.3835	.4329	.4824	.5319	.5814		
13	.0402	.0897	.1392	.1886	.2381	.2876	.3371	.3866	.4360	.4855	.5350	.5845		
14	.0433	.0928	.1423	.1917	.2412	.2907	.3402	.3896	.4391	.4886	.5381	.5876		
15	.0464	.0959	.1453	.1948	.2443	.2938	.3433	.3927	.4422	.4917	.5412	.5907		

Hypothenuse

0	.0000	.0969	.1938	.2907	.3877	.4846	.5815	.6784	.7753	.8722	.9692	1.0661	10	11.6299
1	.0061	.1030	.1999	.2968	.3937	.4906	.5876	.6845	.7814	.8783	.9752	1.0721	20	23.2597
2	.0121	.1090	.2059	.3029	.3998	.4967	.5936	.6905	.7874	.8844	.9813	1.0782	30	34.8896
3	.0182	.1151	.2120	.3089	.4058	.5027	.5997	.6966	.7935	.8904	.9873	1.0842	40	46.5195
4	.0242	.1211	.2181	.3150	.4119	.5088	.6057	.7026	.7996	.8965	.9934	1.0903	50	58.1494
5	.0303	.1272	.2241	.3210	.4179	.5149	.6118	.7087	.8056	.9025	.9994	1.0964	60	69.7792
6	.0363	.1333	.2302	.3271	.4240	.5209	.6178	.7148	.8117	.9086	1.0055	1.1024	70	81.4091
7	.0424	.1393	.2362	.3331	.4301	.5270	.6239	.7208	.8177	.9146	1.0116	1.1085	80	93.0390
8	.0485	.1454	.2423	.3392	.4361	.5330	.6300	.7269	.8238	.9207	1.0176	1.1145	90	104.6688
9	.0545	.1514	.2483	.3453	.4422	.5391	.6360	.7329	.8298	.9268	1.0237	1.1206	100	116.2987
10	.0606	.1575	.2544	.3513	.4482	.5452	.6421	.7390	.8359	.9328	1.0297	1.1266		
11	.0666	.1635	.2605	.3574	.4543	.5512	.6481	.7450	.8420	.9389	1.0358	1.1327		
12	.0727	.1696	.2665	.3634	.4603	.5573	.6542	.7511	.8480	.9449	1.0418	1.1388		
13	.0787	.1757	.2726	.3695	.4664	.5633	.6602	.7572	.8541	.9510	1.0479	1.1448		
14	.0848	.1817	.2786	.3755	.4725	.5694	.6663	.7632	.8601	.9570	1.0540	1.1509		
15	.0909	.1878	.2847	.3816	.4785	.5754	.6724	.7693	.8662	.9631	1.0600	1.1569		

Equivalent Angle 30° 55' 10"						Altitude					Batter 7 ³ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0499	.0998	.1497	.1997	.2496	.2995	.3494	.3993	.4492	.4991	.5490	10	5.9896
1	.0031	.0530	.1029	.1529	.2028	.2527	.3026	.3525	.4024	.4523	.5023	.5522	20	11.9792
2	.0062	.0562	.1061	.1560	.2059	.2558	.3057	.3556	.4055	.4555	.5054	.5553	30	17.9688
3	.0094	.0593	.1092	.1591	.2090	.2589	.3088	.3588	.4087	.4586	.5085	.5584	40	23.9583
4	.0125	.0624	.1123	.1622	.2121	.2620	.3120	.3619	.4118	.4617	.5116	.5615	50	29.9479
5	.0156	.0655	.1154	.1653	.2153	.2652	.3151	.3650	.4149	.4648	.5147	.5646	60	35.9375
6	.0187	.0686	.1185	.1685	.2184	.2683	.3182	.3681	.4180	.4679	.5178	.5678	70	41.9271
7	.0218	.0718	.1217	.1716	.2215	.2714	.3213	.3712	.4211	.4711	.5210	.5709	80	47.9167
8	.0250	.0749	.1248	.1747	.2246	.2745	.3244	.3743	.4243	.4742	.5241	.5740	90	53.9063
9	.0281	.0780	.1279	.1778	.2277	.2776	.3276	.3775	.4274	.4773	.5272	.5771	100	59.8958
10	.0312	.0811	.1310	.1809	.2308	.2808	.3307	.3806	.4305	.4804	.5303	.5802		
11	.0343	.0842	.1341	.1841	.2340	.2839	.3338	.3837	.4336	.4835	.5334	.5834		
12	.0374	.0873	.1373	.1872	.2371	.2870	.3369	.3868	.4367	.4867	.5366	.5865		
13	.0405	.0905	.1404	.1903	.2402	.2901	.3400	.3899	.4399	.4898	.5397	.5896		
14	.0437	.0936	.1435	.1934	.2433	.2932	.3432	.3931	.4430	.4929	.5428	.5927		
15	.0468	.0967	.1466	.1965	.2464	.2964	.3463	.3962	.4461	.4960	.5459	.5958		

Hypotenuse

0	.0000	.0971	.1943	.2914	.3886	.4857	.5828	.6800	.7771	.8742	.9714	1.0685	10	11.6565
1	.0061	.1032	.2003	.2975	.3946	.4918	.5889	.6860	.7832	.8803	.9775	1.0746	20	23.3131
2	.0121	.1093	.2064	.3036	.4007	.4978	.5950	.6921	.7892	.8864	.9835	1.0807	30	34.9696
3	.0182	.1154	.2125	.3096	.4068	.5039	.6010	.6982	.7953	.8925	.9896	1.0867	40	46.6262
4	.0243	.1214	.2186	.3157	.4128	.5100	.6071	.7042	.8014	.8985	.9957	1.0928	50	58.2827
5	.0304	.1275	.2246	.3218	.4189	.5160	.6132	.7103	.8075	.9046	1.0017	1.0989	60	69.9393
6	.0364	.1336	.2307	.3278	.4250	.5221	.6193	.7164	.8135	.9107	1.0078	1.1049	70	81.5958
7	.0425	.1396	.2368	.3339	.4310	.5282	.6253	.7225	.8196	.9167	1.0139	1.1110	80	93.2524
8	.0486	.1457	.2428	.3400	.4371	.5343	.6314	.7285	.8257	.9228	1.0199	1.1171	90	104.9089
9	.0546	.1518	.2489	.3461	.4432	.5403	.6375	.7346	.8317	.9289	1.0260	1.1232	100	116.5655
10	.0607	.1578	.2550	.3521	.4493	.5464	.6435	.7407	.8378	.9350	1.0321	1.1292		
11	.0668	.1639	.2611	.3582	.4553	.5525	.6496	.7467	.8439	.9410	1.0382	1.1353		
12	.0729	.1700	.2671	.3643	.4614	.5585	.6557	.7528	.8500	.9471	1.0422	1.1414		
13	.0789	.1761	.2732	.3703	.4675	.5646	.6618	.7589	.8560	.9532	1.0503	1.1474		
14	.0850	.1821	.2793	.3764	.4735	.5707	.6678	.7650	.8621	.9592	1.0564	1.1535		
15	.0911	.1882	.2853	.3825	.4796	.5768	.6739	.7710	.8682	.9653	1.0624	1.1596		

Equivalent Angle $31^{\circ} 08' 20''$					Altitude					Batter $7\frac{1}{4}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0503	.1007	.1510	.2014	.2517	.3021	.3524	.4028	.4531	.5035	.5538	10	6.0417
1	.0031	.0535	.1038	.1542	.2045	.2549	.3052	.3556	.4059	.4563	.5066	.5570	20	12.0833
2	.0063	.0566	.1070	.1573	.2077	.2580	.3084	.3587	.4091	.4594	.5098	.5601	30	18.1250
3	.0094	.0598	.1101	.1605	.2108	.2612	.3115	.3619	.4122	.4626	.5129	.5633	40	24.1667
4	.0126	.0629	.1133	.1636	.2140	.2643	.3147	.3650	.4154	.4657	.5161	.5664	50	30.2083
5	.0157	.0661	.1164	.1668	.2171	.2675	.3178	.3682	.4185	.4689	.5192	.5696	60	36.2500
6	.0189	.0692	.1196	.1699	.2203	.2706	.3210	.3713	.4217	.4720	.5224	.5727	70	42.2917
7	.0220	.0724	.1227	.1731	.2234	.2738	.3241	.3745	.4248	.4752	.5255	.5758	80	48.3333
8	.0252	.0755	.1259	.1762	.2266	.2769	.3273	.3776	.4280	.4783	.5286	.5790	90	54.3750
9	.0283	.0787	.1290	.1794	.2297	.2801	.3304	.3808	.4311	.4814	.5318	.5821	100	60.4167
10	.0315	.0818	.1322	.1825	.2329	.2832	.3336	.3839	.4342	.4846	.5349	.5853		
11	.0346	.0850	.1353	.1857	.2360	.2864	.3367	.3870	.4374	.4877	.5381	.5884		
12	.0378	.0881	.1385	.1888	.2391	.2895	.3398	.3902	.4405	.4909	.5412	.5916		
13	.0409	.0913	.1416	.1919	.2423	.2926	.3430	.3933	.4437	.4940	.5444	.5947		
14	.0441	.0944	.1447	.1951	.2454	.2958	.3461	.3965	.4468	.4972	.5475	.5979		
15	.0472	.0975	.1479	.1982	.2486	.2989	.3493	.3996	.4500	.5003	.5507	.6010		

Hypotenuse

0	.0000	.0974	.1947	.2921	.3894	.4868	.5842	.6815	.7789	.8763	.9736	1.0710	10	11.6834
1	.0061	.1034	.2008	.2982	.3955	.4929	.5903	.6876	.7850	.8823	.9797	1.0771	20	23.3668
2	.0122	.1095	.2069	.3043	.4016	.4990	.5963	.6937	.7911	.8884	.9858	1.0831	30	35.0502
3	.0183	.1156	.2130	.3103	.4077	.5051	.6024	.6998	.7971	.8945	.9919	1.0892	40	46.7336
4	.0243	.1217	.2191	.3164	.4138	.5111	.6085	.7059	.8032	.9006	.9980	1.0953	50	58.4170
5	.0304	.1278	.2251	.3225	.4199	.5172	.6146	.7120	.8093	.9067	1.0040	1.1014	60	70.1004
6	.0365	.1339	.2312	.3286	.4260	.5233	.6207	.7180	.8154	.9128	1.0101	1.1075	70	81.7838
7	.0426	.1400	.2373	.3347	.4320	.5294	.6268	.7241	.8215	.9189	1.0162	1.1136	80	93.4672
8	.0487	.1460	.2434	.3408	.4381	.5355	.6329	.7302	.8276	.9249	1.0223	1.1197	90	105.1506
9	.0548	.1521	.2495	.3469	.4442	.5416	.6389	.7363	.8337	.9310	1.0284	1.1257	100	116.8340
10	.0609	.1782	.2556	.3529	.4503	.5477	.6450	.7424	.8397	.9371	1.0345	1.1318		
11	.0669	.1643	.2617	.3590	.4564	.5537	.6511	.7485	.8458	.9432	1.0406	1.1379		
12	.0730	.1704	.2677	.3651	.4625	.5598	.6572	.7546	.8519	.9493	1.0466	1.1440		
13	.0791	.1765	.2738	.3712	.4686	.5659	.6633	.7606	.8580	.9554	1.0527	1.1501		
14	.0852	.1826	.2799	.3773	.4746	.5720	.6694	.7667	.8641	.9614	1.0588	1.1562		
15	.0913	.1886	.2860	.3834	.4807	.5781	.6754	.7728	.8702	.9675	1.0649	1.1623		

Equivalent Angle 31° 21' 25"						Altitude					Batter 7 ⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0508	.1016	.1523	.2031	.2539	.3047	.3555	.4063	.4570	.5078	.5586	10	6.0938
1	.0032	.0540	.1047	.1555	.2063	.2571	.3079	.3586	.4094	.4602	.5110	.5618	20	12.1875
2	.0063	.0571	.1079	.1587	.2095	.2603	.3110	.3618	.4126	.4634	.5142	.5649	30	18.2813
3	.0095	.0603	.1111	.1619	.2126	.2634	.3142	.3650	.4158	.4666	.5173	.5681	40	24.3750
4	.0127	.0635	.1143	.1650	.2158	.2666	.3174	.3682	.4189	.4697	.5205	.5713	50	30.4688
5	.0159	.0667	.1174	.1682	.2190	.2698	.3206	.3713	.4221	.4729	.5237	.5745	60	36.5625
6	.0190	.0698	.1206	.1714	.2222	.2729	.3237	.3745	.4253	.4761	.5269	.5776	70	42.6563
7	.0222	.0730	.1238	.1746	.2253	.2761	.3269	.3777	.4285	.4792	.5300	.5808	80	48.7500
8	.0254	.0762	.1270	.1777	.2285	.2793	.3301	.3809	.4316	.4824	.5332	.5840	90	54.8438
9	.0286	.0793	.1301	.1809	.2317	.2825	.3333	.3840	.4348	.4856	.5364	.5872	100	60.9375
10	.0317	.0825	.1333	.1841	.2349	.2856	.3364	.3872	.4380	.4888	.5396	.5903		
11	.0349	.0857	.1365	.1873	.2380	.2888	.3396	.3904	.4412	.4919	.5427	.5935		
12	.0381	.0889	.1396	.1904	.2412	.2920	.3428	.3936	.4443	.4951	.5459	.5967		
13	.0413	.0920	.1428	.1936	.2444	.2952	.3459	.3967	.4475	.4983	.5491	.5999		
14	.0444	.0952	.1460	.1968	.2476	.2983	.3491	.3999	.4507	.5015	.5522	.6030		
15	.0476	.0984	.1492	.2000	.2507	.3015	.3523	.4031	.4539	.5046	.5554	.6062		

Hypothenuse

0	.0000	.0976	.1952	.2928	.3903	.4879	.5855	.6831	.7807	.8783	.9759	1.0735	10	11.7104
1	.0061	.1057	.2013	.2989	.3964	.4940	.5916	.6892	.7868	.8844	.9820	1.0796	20	23.4208
2	.0122	.1098	.2074	.3050	.4025	.5001	.5977	.6953	.7929	.8905	.9881	1.0857	30	35.1312
3	.0183	.1159	.2135	.3111	.4086	.5062	.6038	.7014	.7990	.8966	.9942	1.0918	40	46.8417
4	.0244	.1220	.2196	.3172	.4147	.5123	.6099	.7075	.8051	.9027	1.0003	1.0979	50	58.5521
5	.0305	.1281	.2257	.3233	.4208	.5184	.6160	.7136	.8112	.9088	1.0064	1.1040	60	70.2625
6	.0366	.1342	.2318	.3294	.4269	.5245	.6221	.7197	.8173	.9149	1.0125	1.1100	70	81.9729
7	.0427	.1403	.2379	.3355	.4330	.5306	.6282	.7258	.8234	.9210	1.0186	1.1161	80	93.6833
8	.0488	.1464	.2440	.3416	.4391	.5367	.6343	.7319	.8295	.9271	1.0247	1.1222	90	105.3937
9	.0549	.1525	.2501	.3477	.4452	.5428	.6404	.7380	.8356	.9332	1.0308	1.1283	100	117.1041
10	.0610	.1586	.2562	.3538	.4513	.5489	.6465	.7441	.8417	.9393	1.0369	1.1344		
11	.0671	.1647	.2623	.3599	.4574	.5550	.6526	.7502	.8478	.9454	1.0430	1.1405		
12	.0732	.1708	.2684	.3659	.4635	.5611	.6587	.7563	.8539	.9515	1.0491	1.1466		
13	.0793	.1769	.2745	.3720	.4696	.5672	.6648	.7624	.8600	.9576	1.0552	1.1527		
14	.0854	.1830	.2806	.3781	.4757	.5733	.6709	.7685	.8661	.9637	1.0613	1.1588		
15	.0915	.1891	.2867	.3842	.4818	.5794	.6770	.7746	.8722	.9698	1.0674	1.1649		

Equivalent Angle 31° 34' 27"						Altitude						Batter 7 $\frac{3}{8}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0512	.1024	.1536	.2049	.2561	.3073	.3585	.4097	.4609	.5122	.5634	10	6.1458
1	.0032	.0544	.1056	.1568	.2081	.2593	.3105	.3617	.4129	.4641	.5154	.5666	20	12.2917
2	.0064	.0576	.1088	.1600	.2113	.2625	.3137	.3649	.4161	.4673	.5186	.5698	30	18.4375
3	.0096	.0608	.1120	.1632	.2145	.2657	.3169	.3681	.4193	.4705	.5218	.5730	40	24.5833
4	.0128	.0640	.1152	.1664	.2177	.2689	.3201	.3713	.4225	.4737	.5250	.5762	50	30.7292
5	.0160	.0672	.1184	.1697	.2209	.2721	.3233	.3745	.4257	.4769	.5282	.5794	60	36.8750
6	.0192	.0704	.1216	.1729	.2241	.2753	.3265	.3777	.4289	.4801	.5314	.5826	70	43.0208
7	.0224	.0736	.1248	.1761	.2273	.2785	.3297	.3809	.4321	.4833	.5346	.5858	80	49.1667
8	.0256	.0768	.1280	.1793	.2305	.2817	.3329	.3841	.4353	.4865	.5378	.5890	90	55.3125
9	.0288	.0800	.1312	.1825	.2337	.2849	.3361	.3873	.4385	.4897	.5410	.5922	100	61.4583
10	.0320	.0832	.1344	.1857	.2369	.2881	.3393	.3905	.4417	.4929	.5442	.5954		
11	.0352	.0864	.1376	.1889	.2401	.2913	.3425	.3937	.4449	.4961	.5474	.5986		
12	.0384	.0896	.1408	.1921	.2433	.2945	.3457	.3969	.4481	.4993	.5506	.6018		
13	.0416	.0928	.1440	.1953	.2465	.2977	.3489	.4001	.4513	.5025	.5538	.6050		
14	.0448	.0960	.1472	.1985	.2497	.3009	.3521	.4033	.4545	.5058	.5570	.6082		
15	.0480	.0992	.1504	.2017	.2529	.3041	.3553	.4065	.4577	.5090	.5602	.6114		

Hypothénuse

0	.0000	.0978	.1956	.2934	.3913	.4891	.5869	.6847	.7825	.8803	.9781	1.0759	10	11.7376
1	.0061	.1039	.2017	.2996	.3974	.4952	.5930	.6908	.7886	.8864	.9842	1.0821	20	23.4752
2	.0122	.1100	.2079	.3057	.4035	.5013	.5991	.6969	.7947	.8925	.9904	1.0882	30	35.2128
3	.0183	.1162	.2140	.3118	.4096	.5074	.6052	.7030	.8008	.8987	.9965	1.0943	40	46.9504
4	.0245	.1223	.2201	.3179	.4157	.5135	.6113	.7091	.8070	.9048	1.0026	1.1004	50	58.6880
5	.0306	.1284	.2262	.3240	.4218	.5196	.6174	.7153	.8131	.9109	1.0087	1.1065	60	70.4256
6	.0367	.1345	.2323	.3301	.4279	.5257	.6236	.7214	.8192	.9170	1.0148	1.1126	70	82.1632
7	.0428	.1406	.2384	.3362	.4340	.5319	.6297	.7275	.8253	.9231	1.0209	1.1187	80	93.9008
8	.0489	.1467	.2445	.3423	.4402	.5380	.6358	.7336	.8314	.9292	1.0270	1.1249	90	105.6384
9	.0550	.1528	.2506	.3485	.4463	.5441	.6419	.7397	.8375	.9353	1.0332	1.1310	100	117.3760
10	.0611	.1589	.2568	.3546	.4524	.5502	.6480	.7458	.8436	.9415	1.0393	1.1371		
11	.0672	.1651	.2629	.3607	.4585	.5563	.6541	.7519	.8498	.9476	1.0454	1.1432		
12	.0734	.1712	.2690	.3668	.4646	.5624	.6602	.7581	.8559	.9537	1.0515	1.1493		
13	.0795	.1773	.2751	.3729	.4707	.5685	.6664	.7642	.8620	.9598	1.0576	1.1554		
14	.0856	.1834	.2812	.3790	.4768	.5747	.6725	.7703	.8681	.9659	1.0637	1.1615		
15	.0917	.1895	.2873	.3851	.4830	.5808	.6786	.7764	.8742	.9720	1.0698	1.1676		

Equivalent Angle 31° 47' 25"

Altitude

Batter 7⁷/₁₆ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0516	.1033	.1549	.2066	.2582	.3099	.3615	.4132	.4648	.5165	.5681	10	6.1979
1	.0032	.0549	.1065	.1582	.2098	.2615	.3131	.3648	.4164	.4681	.5197	.5714	20	12.3958
2	.0065	.0581	.1098	.1614	.2131	.2647	.3164	.3680	.4197	.4713	.5229	.5746	30	18.5938
3	.0097	.0613	.1130	.1646	.2163	.2679	.3196	.3712	.4229	.4745	.5262	.5778	40	24.7917
4	.0129	.0646	.1162	.1679	.2195	.2712	.3228	.3745	.4261	.4778	.5294	.5811	50	30.9896
5	.0161	.0678	.1194	.1711	.2227	.2744	.3260	.3777	.4293	.4810	.5326	.5843	60	37.1875
6	.0194	.0710	.1227	.1743	.2260	.2776	.3293	.3809	.4326	.4842	.5359	.5875	70	43.3854
7	.0226	.0742	.1259	.1775	.2292	.2809	.3325	.3841	.4358	.4874	.5391	.5907	80	49.5833
8	.0258	.0775	.1291	.1808	.2324	.2841	.3357	.3874	.4390	.4907	.5423	.5940	90	55.7813
9	.0291	.0807	.1324	.1840	.2356	.2873	.3389	.3906	.4422	.4939	.5455	.5972	100	61.9792
10	.0323	.0339	.1356	.1872	.2389	.2905	.3422	.3938	.4455	.4971	.5488	.6004		
11	.0355	.0372	.1388	.1905	.2421	.2938	.3454	.3971	.4487	.5004	.5520	.6037		
12	.0387	.0904	.1420	.1937	.2453	.2970	.3486	.4003	.4519	.5036	.5552	.6069		
13	.0420	.0936	.1453	.1969	.2486	.3002	.3519	.4035	.4552	.5068	.5585	.6101		
14	.0452	.0968	.1485	.2001	.2518	.3034	.3551	.4067	.4584	.5100	.5617	.6133		
15	.0484	.1001	.1517	.2034	.2550	.3067	.3583	.4100	.4616	.5133	.5649	.6166		

Hypothense

0	.0000	.0980	.1961	.2941	.3922	.4902	.5882	.6863	.7843	.8824	.9804	1.0785	10	11.7650
1	.0031	.1042	.2022	.3003	.3983	.4963	.5944	.6924	.7905	.8885	.9865	1.0846	20	23.5299
2	.0123	.1103	.2083	.3064	.4044	.5025	.6005	.6985	.7966	.8946	.9927	1.0907	30	35.2949
3	.0184	.1164	.2145	.3125	.4105	.5086	.6066	.7047	.8027	.9008	.9988	1.0968	40	47.0598
4	.0245	.1226	.2206	.3186	.4167	.5147	.6128	.7108	.8088	.9069	1.0049	1.1030	50	58.8248
5	.0306	.1287	.2267	.3248	.4228	.5208	.6189	.7169	.8150	.9130	1.0111	1.1091	60	70.5897
6	.0368	.1348	.2328	.3309	.4289	.5270	.6250	.7231	.8211	.9191	1.0172	1.1152	70	82.3547
7	.0429	.1409	.2390	.3370	.4351	.5331	.6311	.7292	.8272	.9253	1.0233	1.1213	80	94.1196
8	.0490	.1471	.2451	.3431	.4412	.5392	.6373	.7353	.8334	.9314	1.0294	1.1275	90	105.8846
9	.0551	.1532	.2512	.3493	.4473	.5454	.6434	.7414	.8395	.9375	1.0356	1.1336	100	117.6496
10	.0613	.1593	.2574	.3554	.4534	.5515	.6495	.7476	.8456	.9436	1.0417	1.1397		
11	.0674	.1654	.2635	.3615	.4596	.5576	.6557	.7537	.8517	.9498	1.0478	1.1459		
12	.0735	.1716	.2696	.3677	.4657	.5637	.6618	.7598	.8579	.9559	1.0539	1.1520		
13	.0797	.1777	.2757	.3738	.4718	.5699	.6679	.7659	.8640	.9620	1.0601	1.1581		
14	.0858	.1838	.2819	.3799	.4780	.5760	.6740	.7721	.8701	.9682	1.0662	1.1642		
15	.0919	.1900	.2880	.3860	.4841	.5821	.6802	.7782	.8762	.9743	1.0723	1.1704		



Equivalent Angle 32° 00' 19"

Altitude

Batter 7½ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0521	.1042	.1563	.2083	.2604	.3125	.3646	.4167	.4688	.5208	.5729	10	6.2500
1	.0033	.0553	.1074	.1595	.2116	.2637	.3158	.3678	.4199	.4720	.5241	.5762	20	12.5000
2	.0065	.0586	.1107	.1628	.2148	.2669	.3190	.3711	.4232	.4753	.5273	.5794	30	18.7500
3	.0098	.0618	.1139	.1660	.2181	.2702	.3223	.3743	.4264	.4785	.5306	.5827	40	25.0000
4	.0130	.0651	.1172	.1693	.2214	.2734	.3255	.3776	.4297	.4718	.5339	.5859	50	31.2500
5	.0163	.0684	.1204	.1725	.2246	.2767	.3288	.3809	.4329	.4750	.5371	.5892	60	37.5000
6	.0195	.0716	.1237	.1758	.2279	.2799	.3320	.3841	.4362	.4783	.5404	.5924	70	43.7500
7	.0228	.0749	.1270	.1790	.2311	.2832	.3353	.3874	.4395	.4815	.5436	.5957	80	50.0000
8	.0260	.0781	.1302	.1823	.2344	.2865	.3385	.3906	.4427	.4848	.5469	.5990	90	56.2500
9	.0293	.0814	.1335	.1855	.2376	.2897	.3418	.3939	.4460	.4880	.5501	.6022	100	62.5000
10	.0326	.0846	.1367	.1888	.2409	.2930	.3451	.3971	.4492	.4913	.5534	.6055		
11	.0358	.0879	.1400	.1921	.2441	.2962	.3483	.4004	.4525	.4946	.5566	.6087		
12	.0391	.0911	.1432	.1953	.2474	.2995	.3516	.4036	.4557	.4978	.5599	.6120		
13	.0423	.0944	.1465	.1986	.2507	.3027	.3548	.4069	.4590	.5011	.5632	.6152		
14	.0456	.0977	.1497	.2018	.2539	.3060	.3581	.4102	.4622	.5043	.5664	.6185		
15	.0488	.1009	.1530	.2051	.2572	.3092	.3613	.4134	.4655	.5076	.5697	.6217		

Hypothenuse

0	.0000	.0983	.1965	.2948	.3931	.4914	.5896	.6879	.7862	.8844	.9827	1.0810	10	11.7925
1	.0061	.1044	.2027	.3010	.3992	.4975	.5958	.6940	.7923	.8906	.9888	1.0871	20	23.5850
2	.0123	.1106	.2088	.3071	.4054	.5036	.6019	.7002	.7984	.8967	.9950	1.0933	30	35.3774
3	.0184	.1167	.2150	.3132	.4115	.5098	.6080	.7063	.8046	.9029	1.0011	1.0994	40	47.1699
4	.0246	.1228	.2211	.3194	.4177	.5159	.6142	.7125	.8107	.9090	1.0073	1.1055	50	58.9624
5	.0307	.1290	.2273	.3255	.4238	.5221	.6203	.7186	.8169	.9151	1.0134	1.1117	60	70.7549
6	.0369	.1351	.2334	.3317	.4299	.5282	.6265	.7247	.8230	.9213	1.0196	1.1178	70	82.5473
7	.0430	.1413	.2395	.3378	.4361	.5343	.6326	.7309	.8292	.9274	1.0257	1.1240	80	94.3398
8	.0491	.1474	.2457	.3439	.4422	.5405	.6388	.7370	.8353	.9336	1.0318	1.1301	90	106.1323
9	.0553	.1535	.2518	.3501	.4484	.5466	.6449	.7432	.8414	.9397	1.0380	1.1363	100	117.9248
10	.0614	.1597	.2580	.3562	.4545	.5528	.6510	.7493	.8476	.9459	1.0441	1.1424		
11	.0676	.1658	.2641	.3624	.4606	.5589	.6572	.7555	.8537	.9520	1.0503	1.1485		
12	.0737	.1720	.2702	.3685	.4668	.5651	.6633	.7616	.8599	.9581	1.0564	1.1547		
13	.0798	.1781	.2764	.3747	.4729	.5712	.6695	.7677	.8660	.9643	1.0626	1.1608		
14	.0860	.1843	.2825	.3808	.4791	.5773	.6756	.7739	.8722	.9704	1.0687	1.1670		
15	.0921	.1904	.2887	.3869	.4852	.5835	.6818	.7800	.8783	.9766	1.0748	1.1731		

Equivalent Angle 32° 13' 10"						Altitude					Batter 7 ⁹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0525	.1050	.1576	.2101	.2626	.3151	.3676	.4201	.4727	.5252	.5777	10	6.3021
1	.0033	.0558	.1083	.1608	.2134	.2659	.3184	.3709	.4234	.4759	.5285	.5810	20	12.6042
2	.0066	.0591	.1116	.1641	.2166	.2692	.3217	.3742	.4267	.4892	.5317	.5843	30	18.9063
3	.0098	.0624	.1149	.1674	.2199	.2724	.3250	.3775	.4300	.4925	.5350	.5875	40	25.2083
4	.0131	.0656	.1182	.1707	.2232	.2757	.3282	.3808	.4333	.4958	.5383	.5908	50	31.5104
5	.0164	.0689	.1214	.1740	.2265	.2790	.3315	.3840	.4366	.4991	.5416	.5941	60	37.8125
6	.0197	.0722	.1247	.1772	.2298	.2823	.3348	.3873	.4398	.5023	.5449	.5974	70	44.1146
7	.0230	.0755	.1280	.1805	.2330	.2856	.3381	.3906	.4431	.5056	.5481	.6007	80	50.4167
8	.0263	.0788	.1313	.1838	.2363	.2888	.3414	.3939	.4464	.5089	.5514	.6039	90	56.7188
9	.0295	.0821	.1346	.1871	.2396	.2921	.3446	.3972	.4497	.5122	.5547	.6072	100	63.0208
10	.0328	.0853	.1379	.1904	.2429	.2954	.3479	.4004	.4530	.5155	.5580	.6105		
11	.0361	.0886	.1411	.1937	.2462	.2987	.3512	.4037	.4562	.5188	.5613	.6138		
12	.0394	.0919	.1444	.1969	.2495	.3020	.3545	.4070	.4595	.5220	.5646	.6171		
13	.0427	.0952	.1477	.2002	.2527	.3053	.3578	.4103	.4628	.5253	.5678	.6204		
14	.0460	.0985	.1510	.2035	.2560	.3085	.3611	.4136	.4661	.5286	.5711	.6236		
15	.0492	.1018	.1543	.2068	.2593	.3118	.3643	.4169	.4694	.5319	.5744	.6269		

Hypotenuse

0	.0000	.0985	.1970	.2955	.3940	.4925	.5910	.6895	.7880	.8865	.9850	1.0835	10	11.8202
1	.0062	.1047	.2032	.3017	.4002	.4987	.5972	.6957	.7942	.8927	.9912	1.0897	20	23.6403
2	.0123	.1108	.2093	.3078	.4063	.5048	.6033	.7018	.8003	.8988	.9973	1.0958	30	35.4605
3	.0185	.1170	.2155	.3140	.4125	.5110	.6095	.7080	.8065	.9050	1.0035	1.1020	40	47.2807
4	.0246	.1231	.2216	.3201	.4186	.5171	.6156	.7141	.8126	.9111	1.0096	1.1081	50	59.1008
5	.0308	.1293	.2278	.3263	.4248	.5233	.6218	.7203	.8188	.9173	1.0158	1.1143	60	70.9210
6	.0369	.1354	.2339	.3324	.4309	.5294	.6279	.7264	.8249	.9235	1.0220	1.1205	70	82.7411
7	.0431	.1416	.2401	.3386	.4371	.5356	.6341	.7326	.8311	.9296	1.0281	1.1266	80	94.5613
8	.0493	.1478	.2463	.3448	.4433	.5418	.6403	.7388	.8373	.9358	1.0343	1.1328	90	106.3815
9	.0554	.1539	.2524	.3509	.4494	.5479	.6464	.7449	.8434	.9419	1.0404	1.1389	100	118.2016
10	.0616	.1601	.2586	.3571	.4556	.5541	.6526	.7511	.8496	.9481	1.0466	1.1451		
11	.0677	.1662	.2647	.3632	.4617	.5602	.6587	.7572	.8557	.9542	1.0527	1.1512		
12	.0739	.1724	.2709	.3694	.4679	.5664	.6649	.7634	.8619	.9604	1.0589	1.1574		
13	.0800	.1785	.2770	.3755	.4740	.5725	.6710	.7695	.8680	.9665	1.0650	1.1635		
14	.0862	.1847	.2832	.3817	.4802	.5787	.6772	.7757	.8742	.9727	1.0712	1.1697		
15	.0923	.1908	.2893	.3878	.4864	.5849	.6834	.7819	.8804	.9789	1.0774	1.1759		

Equivalent Angle $32^{\circ} 25' 57''$

Altitude

Batter $7\frac{5}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0530	.1059	.1589	.2118	.2648	.3177	.3707	.4236	.4766	.5295	.5825	10 6.3542
1	.0033	.0563	.1092	.1622	.2151	.2681	.3210	.3740	.4269	.4799	.5328	.5858	20 12.7083
2	.0066	.0596	.1125	.1655	.2184	.2714	.3243	.3773	.4302	.4832	.5361	.5891	30 19.0625
3	.0099	.0629	.1158	.1688	.2217	.2747	.3276	.3806	.4335	.4865	.5394	.5924	40 25.4167
4	.0132	.0662	.1191	.1721	.2250	.2780	.3309	.3839	.4368	.4898	.5428	.5957	50 31.7708
5	.0165	.0695	.1225	.1754	.2284	.2813	.3343	.3872	.4402	.4931	.5461	.5990	60 38.1250
6	.0199	.0728	.1258	.1787	.2317	.2846	.3376	.3905	.4435	.4964	.5494	.6023	70 44.4792
7	.0232	.0761	.1291	.1820	.2350	.2879	.3409	.3938	.4468	.4997	.5527	.6056	80 50.8333
8	.0265	.0794	.1324	.1853	.2383	.2912	.3442	.3971	.4501	.5030	.5560	.6089	90 57.1875
9	.0298	.0827	.1357	.1886	.2416	.2945	.3475	.4004	.4534	.5063	.5593	.6123	100 63.5417
10	.0331	.0860	.1390	.1919	.2449	.2979	.3508	.4038	.4567	.5097	.5626	.6156	
11	.0364	.0894	.1423	.1953	.2482	.3012	.3541	.4071	.4600	.5130	.5659	.6189	
12	.0397	.0927	.1456	.1986	.2515	.3045	.3574	.4104	.4633	.5163	.5692	.6222	
13	.0430	.0960	.1489	.2019	.2548	.3078	.3607	.4137	.4666	.5196	.5725	.6255	
14	.0463	.0993	.1522	.2052	.2581	.3111	.3640	.4170	.4699	.5229	.5758	.6288	
15	.0496	.1026	.1555	.2085	.2614	.3144	.3663	.4203	.4733	.5262	.5792	.6321	

Hypotenuse

0	.0000	.0987	.1975	.2962	.3949	.4937	.5924	.6911	.7899	.8886	.9873	1.0861	10 11.8480
1	.0062	.1049	.2036	.3024	.4011	.4998	.5986	.6973	.7960	.8948	.9935	1.0922	20 23.6960
2	.0123	.1111	.2098	.3085	.4073	.5060	.6047	.7035	.8022	.9009	.9997	1.0984	30 35.5440
3	.0185	.1172	.2160	.3147	.4134	.5122	.6109	.7096	.8084	.9071	1.0058	1.1046	40 47.3921
4	.0247	.1234	.2222	.3209	.4196	.5184	.6171	.7158	.8146	.9133	1.0120	1.1108	50 59.2401
5	.0309	.1296	.2283	.3271	.4258	.5245	.6233	.7220	.8207	.9195	1.0182	1.1169	60 71.0881
6	.0370	.1358	.2345	.3332	.4320	.5307	.6294	.7282	.8269	.9256	1.0244	1.1231	70 82.9361
7	.0432	.1419	.2407	.3394	.4381	.5369	.6356	.7343	.8331	.9318	1.0305	1.1293	80 94.7841
8	.0494	.1481	.2468	.3456	.4443	.5430	.6418	.7405	.8392	.9380	1.0367	1.1354	90 106.6321
9	.0555	.1543	.2530	.3517	.4505	.5492	.6479	.7467	.8454	.9441	1.0429	1.1416	100 118.4801
10	.0617	.1604	.2592	.3579	.4566	.5554	.6541	.7528	.8516	.9503	1.0490	1.1478	
11	.0679	.1666	.2653	.3641	.4628	.5615	.6603	.7590	.8577	.9565	1.0552	1.1539	
12	.0741	.1728	.2715	.3703	.4690	.5677	.6665	.7652	.8639	.9627	1.0614	1.1601	
13	.0802	.1790	.2777	.3764	.4752	.5739	.6726	.7714	.8701	.9688	1.0676	1.1663	
14	.0864	.1851	.2839	.3826	.4813	.5801	.6788	.7775	.8763	.9750	1.0737	1.1725	
15	.0923	.1913	.2900	.3888	.4875	.5862	.6850	.7837	.8824	.9812	1.0799	1.1786	

Equivalent Angle 32° 38' 40"						Altitude					Batter 7 $\frac{11}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0534	.1068	.1602	.2135	.2669	.3203	.3737	.4271	.4805	.5339	.5872	10	6.4063
1	.0033	.0567	.1101	.1635	.2169	.2703	.3236	.3770	.4304	.4838	.5372	.5906	20	12.8125
2	.0067	.0601	.1134	.1668	.2202	.2736	.3270	.3804	.4338	.4871	.5405	.5939	30	19.2188
3	.0100	.0634	.1168	.1702	.2236	.2769	.3303	.3837	.4371	.4905	.5439	.5972	40	25.6250
4	.0133	.0667	.1201	.1735	.2269	.2803	.3337	.3870	.4404	.4938	.5472	.6006	50	32.0313
5	.0167	.0701	.1235	.1768	.2302	.2836	.3370	.3904	.4438	.4972	.5505	.6039	60	38.4375
6	.0200	.0734	.1268	.1802	.2336	.2869	.3403	.3937	.4471	.5005	.5539	.6073	70	44.8438
7	.0234	.0767	.1301	.1835	.2369	.2903	.3437	.3971	.4504	.5038	.5572	.6106	80	51.2500
8	.0267	.0301	.1335	.1868	.2402	.2936	.3470	.4004	.4538	.5072	.5605	.6139	90	57.6563
9	.0300	.0334	.1368	.1902	.2436	.2970	.3503	.4037	.4571	.5105	.5639	.6173	100	64.0625
10	.0334	.0368	.1401	.1935	.2469	.3003	.3537	.4071	.4604	.5138	.5672	.6206		
11	.0367	.0901	.1435	.1969	.2502	.3036	.3570	.4104	.4638	.5172	.5706	.6239		
12	.0400	.0934	.1468	.2002	.2536	.3070	.3604	.4137	.4671	.5205	.5739	.6273		
13	.0434	.0968	.1501	.2035	.2569	.3103	.3637	.4171	.4705	.5238	.5772	.6306		
14	.0467	.1001	.1535	.2069	.2603	.3136	.3670	.4204	.4738	.5272	.5806	.6340		
15	.0500	.1034	.1568	.2102	.2636	.3170	.3704	.4237	.4771	.5305	.5839	.6373		

Hypotenuse

0	.0000	.0990	.1979	.2969	.3959	.4948	.5938	.6928	.7917	.8907	.9897	1.0886	10	11.8760
1	.0062	.1052	.2041	.3031	.4021	.5010	.6000	.6990	.7979	.8969	.9959	1.0948	20	23.7521
2	.0124	.1113	.2103	.3093	.4082	.5072	.6062	.7051	.8041	.9031	1.0020	1.1010	30	35.6281
3	.0186	.1175	.2165	.3155	.4144	.5134	.6124	.7113	.8103	.9093	1.0082	1.1072	40	47.5041
4	.0247	.1237	.2227	.3216	.4206	.5196	.6185	.7175	.8165	.9154	1.0144	1.1134	50	59.3801
5	.0309	.1299	.2289	.3278	.4268	.5258	.6247	.7237	.8227	.9216	1.0206	1.1196	60	71.2562
6	.0371	.1361	.2350	.3340	.4330	.5319	.6309	.7299	.8288	.9278	1.0268	1.1257	70	83.1322
7	.0433	.1423	.2412	.3402	.4392	.5381	.6371	.7361	.8350	.9340	1.0330	1.1319	80	95.0082
8	.0495	.1485	.2474	.3464	.4454	.5443	.6433	.7423	.8412	.9402	1.0392	1.1381	90	106.8843
9	.0557	.1546	.2536	.3526	.4515	.5505	.6495	.7484	.8474	.9464	1.0453	1.1443	100	118.7603
10	.0619	.1608	.2598	.3588	.4577	.5567	.6557	.7546	.8536	.9526	1.0515	1.1505		
11	.0680	.1670	.2660	.3649	.4639	.5629	.6618	.7608	.8598	.9587	1.0577	1.1567		
12	.0742	.1732	.2722	.3711	.4701	.5691	.6680	.7670	.8660	.9649	1.0639	1.1629		
13	.0804	.1794	.2783	.3773	.4763	.5752	.6742	.7732	.8721	.9711	1.0701	1.1690		
14	.0866	.1856	.2845	.3835	.4825	.5814	.6804	.7794	.8783	.9773	1.0763	1.1752		
15	.0928	.1917	.2907	.3897	.4886	.5876	.6866	.7856	.8845	.9835	1.0825	1.1814		

Equivalent Angle 32° 51' 20"						Altitude					Batter 7 $\frac{3}{4}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0538	.1076	.1615	.2153	.2691	.3229	.3767	.4306	.4844	.5382	.5920	10	6.4583
1	.0034	.0572	.1110	.1648	.2186	.2725	.3263	.3801	.4339	.4877	.5416	.5954	20	12.9167
2	.0067	.0605	.1144	.1682	.2220	.2758	.3296	.3835	.4373	.4911	.5449	.5987	30	19.3750
3	.0101	.0639	.1177	.1715	.2254	.2792	.3330	.3868	.4406	.4945	.5483	.6021	40	25.8333
4	.0135	.0673	.1211	.1749	.2287	.2826	.3364	.3902	.4440	.4978	.5516	.6055	50	32.2917
5	.0168	.0706	.1245	.1783	.2321	.2859	.3397	.3936	.4474	.5012	.5550	.6088	60	38.7500
6	.0202	.0740	.1278	.1816	.2355	.2893	.3431	.3969	.4507	.5046	.5584	.6122	70	45.2083
7	.0235	.0774	.1312	.1850	.2388	.2926	.3465	.4003	.4541	.5079	.5617	.6156	80	51.6667
8	.0269	.0807	.1345	.1884	.2422	.2960	.3498	.4036	.4575	.5113	.5651	.6189	90	58.1250
9	.0303	.0841	.1379	.1917	.2456	.2994	.3532	.4070	.4608	.5146	.5685	.6223	100	64.5833
10	.0336	.0875	.1413	.1951	.2489	.3027	.3566	.4104	.4642	.5180	.5718	.6257		
11	.0370	.0908	.1446	.1985	.2523	.3061	.3599	.4137	.4676	.5214	.5752	.6290		
12	.0404	.0942	.1480	.2018	.2556	.3095	.3633	.4171	.4709	.5247	.5786	.6324		
13	.0437	.0975	.1514	.2052	.2590	.3128	.3666	.4205	.4743	.5281	.5819	.6357		
14	.0471	.1009	.1547	.2086	.2624	.3162	.3700	.4238	.4776	.5315	.5853	.6391		
15	.0505	.1043	.1581	.2119	.2657	.3196	.3734	.4272	.4810	.5348	.5887	.6425		

Hypothénuse

0	.0000	.0992	.1984	.2976	.3968	.4960	.5952	.6944	.7936	.8928	.9920	1.0912	10	11.9042
1	.0062	.1054	.2046	.3038	.4030	.5022	.6014	.7006	.7998	.8990	.9982	1.0974	20	23.8084
2	.0124	.1116	.2108	.3100	.4092	.5084	.6076	.7068	.8060	.9052	1.0044	1.1036	30	35.7126
3	.0186	.1178	.2170	.3162	.4154	.5146	.6138	.7130	.8122	.9114	1.0106	1.1098	40	47.6168
4	.0248	.1240	.2232	.3224	.4216	.5208	.6200	.7192	.8184	.9176	1.0168	1.1160	50	59.5210
5	.0310	.1302	.2294	.3286	.4278	.5270	.6262	.7254	.8246	.9238	1.0230	1.1222	60	71.4252
6	.0372	.1364	.2356	.3348	.4340	.5332	.6324	.7316	.8308	.9300	1.0292	1.1284	70	83.3294
7	.0434	.1426	.2418	.3410	.4402	.5394	.6386	.7378	.8370	.9362	1.0354	1.1346	80	95.2336
8	.0496	.1488	.2480	.3472	.4464	.5456	.6448	.7440	.8432	.9424	1.0416	1.1408	90	107.1378
9	.0558	.1550	.2542	.3534	.4526	.5518	.6510	.7502	.8494	.9486	1.0478	1.1470	100	119.0420
10	.0620	.1612	.2604	.3596	.4588	.5580	.6572	.7564	.8556	.9548	1.0540	1.1532		
11	.0682	.1674	.2666	.3658	.4650	.5642	.6634	.7626	.8618	.9610	1.0602	1.1594		
12	.0744	.1736	.2728	.3720	.4712	.5704	.6696	.7688	.8680	.9672	1.0664	1.1656		
13	.0806	.1798	.2790	.3782	.4774	.5766	.6758	.7750	.8742	.9734	1.0726	1.1718		
14	.0868	.1860	.2852	.3844	.4836	.5828	.6820	.7812	.8804	.9796	1.0788	1.1780		
15	.0930	.1922	.2914	.3906	.4898	.5890	.6882	.7874	.8866	.9858	1.0850	1.1842		

Equivalent Angle 33° 03' 57"						Altitude			Batter 7 ¹³ / ₁₆ to 12						
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet		
0	.0000	.0543	.1085	.1628	.2170	.2713	.3255	.3798	.4340	.4883	.5425	.5968	10	6.5104	
1	.0034	.0576	.1119	.1662	.2204	.2747	.3289	.3832	.4374	.4917	.5459	.6002	20	13.0208	
2	.0068	.0610	.1153	.1695	.2238	.2780	.3323	.3866	.4408	.4951	.5493	.6036	30	19.5313	
3	.0102	.0644	.1187	.1729	.2272	.2814	.3357	.3899	.4442	.4985	.5527	.6070	40	26.0417	
4	.0136	.0678	.1221	.1763	.2306	.2848	.3391	.3933	.4476	.5018	.5561	.6104	50	32.5521	
5	.0170	.0712	.1255	.1797	.2340	.2882	.3425	.3967	.4510	.5052	.5595	.6137	60	29.0625	
6	.0203	.0746	.1289	.1831	.2374	.2916	.3459	.4001	.4544	.5086	.5629	.6171	70	45.5729	
7	.0237	.0780	.1322	.1865	.2407	.2950	.3493	.4035	.4578	.5120	.5663	.6205	80	52.0833	
8	.0271	.0814	.1356	.1899	.2441	.2984	.3526	.4069	.4612	.5154	.5697	.6239	90	58.5938	
9	.0305	.0848	.1390	.1933	.2475	.3018	.3560	.4103	.4645	.5188	.5731	.6273	100	65.1042	
10	.0339	.0882	.1424	.1967	.2509	.3052	.3594	.4137	.4679	.5222	.5764	.6307			
11	.0373	.0916	.1458	.2001	.2543	.3086	.3628	.4171	.4713	.5256	.5798	.6341			
12	.0407	.0949	.1492	.2035	.2577	.3120	.3662	.4205	.4747	.5290	.5832	.6375			
13	.0441	.0983	.1526	.2068	.2611	.3153	.3696	.4239	.4781	.5324	.5866	.6409			
14	.0475	.1017	.1560	.2102	.2645	.3187	.3730	.4272	.4815	.5358	.5900	.6443			
15	.0509	.1051	.1594	.2136	.2679	.3221	.3764	.4306	.4849	.5391	.5934	.6477			

Hypotenuse

0	.0000	.0994	.1989	.2983	.3978	.4972	.5966	.6961	.7955	.8949	.9944	1.0938	10	11.9325	
1	.0062	.1057	.2051	.3045	.4040	.5034	.6028	.7023	.8017	.9012	1.0006	1.1000	20	23.8651	
2	.0124	.1119	.2113	.3107	.4102	.5096	.6091	.7085	.8079	.9074	1.0068	1.1062	30	35.7976	
3	.0186	.1181	.2175	.3170	.4164	.5158	.6153	.7147	.8141	.9136	1.0130	1.1125	40	47.7302	
4	.0249	.1243	.2237	.3232	.4226	.5220	.6215	.7209	.8204	.9198	1.0192	1.1187	50	59.6627	
5	.0311	.1305	.2300	.3294	.4288	.5283	.6277	.7271	.8266	.9260	1.0255	1.1249	60	71.5952	
6	.0373	.1367	.2362	.3356	.4350	.5345	.6339	.7334	.8328	.9322	1.0317	1.1311	70	83.5278	
7	.0435	.1429	.2424	.3418	.4413	.5407	.6401	.7396	.8390	.9384	1.0379	1.1373	80	95.4603	
8	.0497	.1492	.2486	.3480	.4475	.5469	.6463	.7458	.8452	.9447	1.0441	1.1435	90	107.3929	
9	.0559	.1554	.2548	.3542	.4537	.5531	.6526	.7520	.8514	.9509	1.0503	1.1498	100	119.3254	
10	.0621	.1616	.2610	.3605	.4599	.5593	.6588	.7582	.8577	.9571	1.0565	1.1560			
11	.0684	.1678	.2672	.3667	.4661	.5656	.6650	.7644	.8639	.9633	1.0627	1.1622			
12	.0746	.1740	.2735	.3729	.4723	.5718	.6712	.7706	.8701	.9695	1.0690	1.1684			
13	.0808	.1802	.2797	.3791	.4785	.5780	.6774	.7769	.8763	.9757	1.0752	1.1746			
14	.0870	.1864	.2859	.3853	.4848	.5842	.6836	.7831	.8825	.9819	1.0814	1.1808			
15	.0932	.1927	.2921	.3915	.4910	.5904	.6899	.7893	.8887	.9882	1.0876	1.1870			

Equivalent Angle 33° 16' 30"

Altitude

Batter 7 $\frac{7}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0547	.1094	.1641	.2188	.2734	.3281	.3828	.4375	.4922	.5469	.6016	10	6.5625
1	.0034	.0581	.1128	.1675	.2222	.2769	.3315	.3862	.4409	.4956	.5503	.6050	20	13.1250
2	.0068	.0615	.1162	.1709	.2256	.2803	.3350	.3896	.4443	.4990	.5537	.6084	30	19.6875
3	.0103	.0649	.1196	.1743	.2290	.2837	.3384	.3931	.4478	.5024	.5571	.6118	40	26.2500
4	.0137	.0684	.1230	.1777	.2324	.2871	.3418	.3965	.4512	.5059	.5605	.6152	50	32.8125
5	.0171	.0718	.1265	.1812	.2358	.2905	.3452	.3999	.4546	.5093	.5640	.6187	60	39.3750
6	.0205	.0752	.1299	.1846	.2393	.2939	.3486	.4033	.4580	.5127	.5674	.6221	70	45.9375
7	.0239	.0786	.1333	.1880	.2427	.2974	.3521	.4067	.4614	.5161	.5708	.6255	80	52.5000
8	.0273	.0820	.1367	.1914	.2461	.3008	.3555	.4102	.4648	.5195	.5742	.6289	90	59.0625
9	.0308	.0854	.1401	.1948	.2495	.3042	.3589	.4136	.4683	.5229	.5776	.6323	100	65.6250
10	.0342	.0889	.1436	.1982	.2529	.3076	.3623	.4170	.4717	.5264	.5811	.6357		
11	.0376	.0923	.1470	.2017	.2563	.3110	.3657	.4204	.4751	.5298	.5845	.6392		
12	.0410	.0957	.1504	.2051	.2598	.3145	.3691	.4238	.4785	.5332	.5879	.6426		
13	.0444	.0991	.1538	.2085	.2632	.3179	.3726	.4272	.4819	.5366	.5913	.6460		
14	.0479	.1025	.1572	.2119	.2666	.3213	.3760	.4307	.4854	.5400	.5947	.6494		
15	.0513	.1060	.1606	.2153	.2700	.3247	.3794	.4341	.4888	.5435	.5981	.6528		

Hypothénuse

0	.0000	.0997	.1994	.2990	.3987	.4984	.5981	.6977	.7974	.8971	.9968	1.0964	10	11.9610
1	.0032	.1059	.2056	.3053	.4049	.5046	.6043	.7040	.8036	.9033	1.0030	1.1027	20	23.9221
2	.0125	.1121	.2118	.3115	.4112	.5108	.6105	.7102	.8099	.9095	1.0092	1.1089	30	35.8831
3	.0187	.1184	.2180	.3177	.4174	.5171	.6167	.7164	.8161	.9158	1.0154	1.1151	40	47.8441
4	.0249	.1246	.2243	.3239	.4236	.5233	.6230	.7226	.8223	.9220	1.0217	1.1213	50	59.8052
5	.0311	.1308	.2305	.3302	.4298	.5295	.6292	.7289	.8286	.9282	1.0279	1.1276	60	71.7662
6	.0374	.1371	.2367	.3364	.4361	.5358	.6354	.7351	.8348	.9345	1.0341	1.1338	70	83.7273
7	.0436	.1433	.2430	.3426	.4423	.5420	.6417	.7413	.8410	.9407	1.0404	1.1400	80	95.6883
8	.0498	.1495	.2492	.3489	.4485	.5482	.6479	.7476	.8472	.9469	1.0466	1.1463	90	107.6493
9	.0561	.1557	.2554	.3551	.4548	.5544	.6541	.7538	.8535	.9531	1.0528	1.1525	100	119.6104
10	.0623	.1620	.2616	.3613	.4610	.5607	.6603	.7600	.8597	.9594	1.0591	1.1587		
11	.0685	.1682	.2679	.3676	.4672	.5669	.6666	.7663	.8659	.9656	1.0653	1.1650		
12	.0748	.1744	.2741	.3738	.4735	.5731	.6728	.7725	.8722	.9718	1.0715	1.1712		
13	.0810	.1807	.2803	.3800	.4797	.5794	.6790	.7787	.8784	.9781	1.0777	1.1774		
14	.0872	.1869	.2866	.3862	.4859	.5856	.6853	.7849	.8846	.9843	1.0840	1.1836		
15	.0934	.1931	.2928	.3925	.4921	.5918	.6915	.7912	.8908	.9905	1.0902	1.1899		

Equivalent Angle 33° 28' 58"						Altitude					Batter 7 ¹⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0551	.1102	.1654	.2205	.2756	.3307	.3859	.4410	.4961	.5512	.6063	10	6.6146
1	.0034	.0586	.1137	.1688	.2239	.2791	.3342	.3893	.4444	.4995	.5547	.6098	20	13.2292
2	.0069	.0620	.1171	.1723	.2274	.2825	.3376	.3927	.4479	.5030	.5581	.6132	30	19.8438
3	.0103	.0655	.1206	.1757	.2308	.2859	.3411	.3962	.4513	.5064	.5616	.6167	40	26.4583
4	.0138	.0689	.1240	.1791	.2343	.2894	.3445	.3996	.4548	.5099	.5650	.6201	50	33.0729
5	.0172	.0723	.1275	.1826	.2377	.2928	.3480	.4031	.4582	.5133	.5684	.6236	60	39.6875
6	.0207	.0758	.1309	.1860	.2412	.2963	.3514	.4065	.4616	.5168	.5719	.6270	70	46.3021
7	.0241	.0792	.1344	.1895	.2446	.2997	.3548	.4100	.4651	.5202	.5753	.6305	80	52.9167
8	.0276	.0827	.1378	.1929	.2480	.3032	.3583	.4134	.4685	.5237	.5788	.6339	90	59.5313
9	.0310	.0861	.1412	.1964	.2515	.3066	.3617	.4169	.4720	.5271	.5822	.6373	100	66.1458
10	.0345	.0896	.1447	.1998	.2549	.3101	.3652	.4203	.4754	.5305	.5857	.6408		
11	.0379	.0930	.1481	.2033	.2584	.3135	.3686	.4237	.4789	.5340	.5891	.6442		
12	.0413	.0965	.1516	.2067	.2618	.3169	.3721	.4272	.4823	.5374	.5926	.6477		
13	.0448	.0999	.1550	.2102	.2653	.3204	.3755	.4306	.4858	.5409	.5960	.6511		
14	.0482	.1034	.1585	.2136	.2687	.3238	.3790	.4341	.4892	.5443	.5994	.6546		
15	.0517	.1068	.1619	.2170	.2722	.3273	.3824	.4375	.4926	.5478	.6029	.6580		

Hypothenus														
0	.0000	.0999	.1998	.2997	.3997	.4996	.5995	.6994	.7993	.8992	.9991	1.0991	10	11.9897
1	.0062	.1062	.2061	.3060	.4059	.5058	.6057	.7056	.8056	.9055	1.0054	1.1053	20	23.9794
2	.0125	.1124	.2123	.3122	.4121	.5121	.6120	.7119	.8118	.9117	1.0116	1.1115	30	35.9691
3	.0187	.1186	.2186	.3185	.4184	.5183	.6182	.7181	.8180	.9180	1.0179	1.1178	40	47.9588
4	.0250	.1249	.2248	.3247	.4246	.5245	.6245	.7244	.8243	.9242	1.0241	1.1240	50	59.9485
5	.0312	.1311	.2311	.3310	.4309	.5308	.6307	.7306	.8305	.9305	1.0304	1.1303	60	71.9382
6	.0375	.1374	.2373	.3372	.4371	.5370	.6370	.7369	.8368	.9367	1.0366	1.1365	70	83.9278
7	.0437	.1436	.2435	.3435	.4434	.5433	.6432	.7431	.8430	.9429	1.0429	1.1428	80	95.9175
8	.0500	.1499	.2498	.3497	.4496	.5495	.6494	.7494	.8493	.9492	1.0491	1.1490	90	107.9072
9	.0562	.1561	.2560	.3559	.4559	.5558	.6557	.7556	.8555	.9554	1.0553	1.1553	100	119.8969
10	.0624	.1624	.2623	.3622	.4621	.5620	.6619	.7618	.8618	.9617	1.0616	1.1615		
11	.0687	.1686	.2685	.3684	.4683	.5683	.6682	.7681	.8680	.9679	1.0678	1.1677		
12	.0749	.1748	.2748	.3747	.4746	.5745	.6744	.7743	.8742	.9742	1.0741	1.1740		
13	.0812	.1811	.2810	.3809	.4808	.5808	.6807	.7806	.8805	.9804	1.0803	1.1802		
14	.0874	.1873	.2873	.3872	.4871	.5870	.6869	.7868	.8867	.9867	1.0866	1.1865		
15	.0937	.1936	.2935	.3934	.4933	.5932	.6932	.7931	.8930	.9929	1.0928	1.1927		

Equivalent Angle 33° 41' 24"

Altitude

Batter 8 to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0556	.1111	.1667	.2222	.2778	.3333	.3889	.4444	.5000	.5556	.6111	10	6.6667
1	.0035	.0590	.1146	.1701	.2257	.2813	.3368	.3924	.4479	.5035	.5590	.6146	20	13.3333
2	.0069	.0625	.1181	.1736	.2292	.2847	.3403	.3958	.4514	.5069	.5625	.6181	30	20.0000
3	.0104	.0660	.1215	.1771	.2326	.2882	.3438	.3993	.4549	.5104	.5660	.6215	40	26.6667
4	.0139	.0694	.1250	.1806	.2361	.2917	.3472	.4028	.4583	.5139	.5694	.6250	50	33.3333
5	.0174	.0729	.1285	.1840	.2396	.2951	.3507	.4063	.4618	.5174	.5729	.6285	60	40.0000
6	.0208	.0764	.1319	.1875	.2431	.2986	.3542	.4097	.4653	.5208	.5764	.6319	70	46.6667
7	.0243	.0799	.1354	.1910	.2465	.3021	.3576	.4132	.4687	.5243	.5799	.6354	80	53.3333
8	.0278	.0833	.1389	.1944	.2500	.3056	.3611	.4167	.4722	.5278	.5833	.6389	90	60.0000
9	.0313	.0868	.1424	.1979	.2535	.3090	.3646	.4201	.4757	.5313	.5868	.6424	100	66.6666
10	.0347	.0903	.1458	.2014	.2569	.3125	.3681	.4236	.4792	.5347	.5903	.6458		
11	.0382	.0937	.1493	.2049	.2604	.3160	.3715	.4271	.4826	.5382	.5938	.6493		
12	.0417	.0972	.1528	.2083	.2639	.3194	.3750	.4306	.4861	.5417	.5972	.6528		
13	.0451	.1007	.1563	.2118	.2674	.3229	.3785	.4340	.4896	.5451	.6007	.6563		
14	.0486	.1042	.1597	.2153	.2708	.3264	.3819	.4375	.4931	.5486	.6042	.6597		
15	.0521	.1076	.1632	.2188	.2743	.3299	.3854	.4410	.4965	.5521	.6076	.6632		

Hypothénuse

0	.0000	.1002	.2003	.3005	.4006	.5008	.6009	.7011	.8012	.9014	1.0015	1.1017	10	12.0185
1	.0063	.1064	.2066	.3067	.4069	.5070	.6072	.7073	.8075	.9076	1.0078	1.1080	20	24.0370
2	.0125	.1127	.2128	.3130	.4131	.5133	.6134	.7136	.8138	.9139	1.0141	1.1142	30	36.0555
3	.0188	.1189	.2191	.3192	.4194	.5196	.6197	.7199	.8200	.9202	1.0203	1.1205	40	48.0740
4	.0250	.1252	.2253	.3255	.4257	.5258	.6260	.7261	.8263	.9264	1.0266	1.1267	50	60.0925
5	.0313	.1315	.2316	.3318	.4319	.5321	.6322	.7324	.8325	.9327	1.0328	1.1330	60	72.1110
6	.0376	.1377	.2379	.3380	.4382	.5383	.6385	.7386	.8388	.9389	1.0391	1.1393	70	84.1295
7	.0438	.1440	.2441	.3443	.4444	.5446	.6447	.7449	.8451	.9452	1.0454	1.1455	80	96.1480
8	.0501	.1502	.2504	.3505	.4507	.5508	.6510	.7512	.8513	.9515	1.0516	1.1518	90	108.1665
9	.0563	.1565	.2566	.3568	.4570	.5571	.6573	.7574	.8576	.9577	1.0579	1.1580	100	120.1850
10	.0626	.1628	.2629	.3631	.4632	.5634	.6635	.7637	.8638	.9640	1.0641	1.1643		
11	.0689	.1690	.2692	.3693	.4695	.5696	.6698	.7699	.8701	.9702	1.0704	1.1706		
12	.0751	.1753	.2754	.3756	.4757	.5759	.6760	.7762	.8763	.9765	1.0767	1.1768		
13	.0814	.1815	.2817	.3818	.4820	.5821	.6823	.7825	.8826	.9828	1.0829	1.1831		
14	.0876	.1878	.2879	.3881	.4883	.5884	.6886	.7887	.8889	.9890	1.0892	1.1893		
15	.0939	.1940	.2942	.3944	.4945	.5947	.6948	.7950	.8951	.9953	1.0954	1.1956		

Equivalent Angle 33° 53' 46"						Altitude					Batter 8 $\frac{1}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0560	.1120	.1680	.2240	.2799	.3359	.3919	.4479	.5039	.5599	.6159	10	6.7188
1	.0035	.0595	.1155	.1715	.2275	.2834	.3394	.3954	.4514	.5074	.5634	.6194	20	13.4375
2	.0070	.0630	.1190	.1750	.2310	.2869	.3429	.3989	.4549	.5109	.5669	.6229	30	20.1563
3	.0105	.0665	.1225	.1785	.2345	.2904	.3464	.4024	.4584	.5144	.5704	.6264	40	26.8750
4	.0140	.0700	.1260	.1820	.2380	.2939	.3499	.4059	.4619	.5179	.5739	.6299	50	33.5938
5	.0175	.0735	.1295	.1855	.2415	.2974	.3534	.4094	.4654	.5214	.5774	.6334	60	40.3125
6	.0210	.0770	.1330	.1890	.2450	.3009	.3569	.4129	.4689	.5249	.5809	.6369	70	47.0313
7	.0245	.0805	.1365	.1925	.2485	.3044	.3604	.4164	.4724	.5284	.5844	.6404	80	53.7500
8	.0280	.0840	.1400	.1960	.2520	.3079	.3639	.4199	.4759	.5319	.5879	.6439	90	60.4688
9	.0315	.0875	.1435	.1995	.2555	.3114	.3674	.4234	.4794	.5354	.5914	.6474	100	67.1875
10	.0350	.0910	.1470	.2030	.2590	.3149	.3709	.4269	.4829	.5389	.5949	.6509		
11	.0385	.0945	.1505	.2065	.2625	.3184	.3744	.4204	.4864	.5424	.5984	.6544		
12	.0420	.0980	.1540	.2100	.2660	.3219	.3779	.4339	.4899	.5459	.6019	.6579		
13	.0455	.1015	.1575	.2135	.2694	.3254	.3814	.4374	.4934	.5494	.6054	.6614		
14	.0490	.1050	.1610	.2170	.2729	.3289	.3849	.4409	.4969	.5529	.6089	.6649		
15	.0525	.1085	.1645	.2205	.2764	.3324	.3884	.4444	.5004	.5564	.6124	.6684		

Hypotenuse

0	.0000	.1004	.2008	.3012	.4016	.5020	.6024	.7028	.8032	.9036	1.0040	1.1044	10	12.0475
1	.0063	.1067	.2071	.3075	.4079	.5083	.6086	.7090	.8094	.9098	1.0102	1.1106	20	24.0949
2	.0125	.1129	.2133	.3137	.4141	.5145	.6149	.7153	.8157	.9161	1.0165	1.1169	30	36.1424
3	.0188	.1192	.2196	.3200	.4204	.5208	.6212	.7216	.8220	.9224	1.0228	1.1232	40	48.1899
4	.0251	.1255	.2259	.3263	.4267	.5271	.6275	.7279	.8283	.9287	1.0291	1.1295	50	60.2374
5	.0314	.1318	.2322	.3326	.4330	.5334	.6337	.7341	.8345	.9349	1.0353	1.1357	60	72.2848
6	.0376	.1380	.2384	.3388	.4392	.5396	.6400	.7404	.8408	.9412	1.0416	1.1420	70	84.3323
7	.0439	.1443	.2447	.3451	.4455	.5459	.6463	.7467	.8471	.9475	1.0479	1.1483	80	96.3798
8	.0502	.1506	.2510	.3514	.4518	.5522	.6526	.7530	.8534	.9538	1.0542	1.1545	90	108.4273
9	.0565	.1569	.2573	.3577	.4581	.5585	.6588	.7592	.8596	.9600	1.0604	1.1608	100	120.4747
10	.0627	.1631	.2635	.3639	.4643	.5647	.6651	.7655	.8659	.9663	1.0667	1.1671		
11	.0690	.1694	.2698	.3702	.4706	.5710	.6714	.7718	.8722	.9726	1.0730	1.1734		
12	.0753	.1757	.2761	.3765	.4769	.5773	.6777	.7781	.8785	.9789	1.0793	1.1796		
13	.0816	.1820	.2824	.3828	.4832	.5835	.6839	.7843	.8847	.9851	1.0855	1.1859		
14	.0878	.1882	.2886	.3890	.4894	.5898	.6902	.7906	.8910	.9914	1.0918	1.1922		
15	.0941	.1945	.2949	.3953	.4957	.5961	.6965	.7969	.8973	.9977	1.0981	1.1985		

Equivalent Angle 34° 06' 05"

Altitude

Batter 8 $\frac{1}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0564	.1128	.1693	.2257	.2821	.3385	.3950	.4514	.5078	.5642	.6207	10	6.7708
1	.0035	.0600	.1164	.1728	.2292	.2856	.3421	.3985	.4549	.5113	.5678	.6242	20	13.5417
2	.0071	.0635	.1199	.1763	.2327	.2892	.3456	.4020	.4584	.5149	.5713	.6277	30	20.3125
3	.0106	.0670	.1234	.1799	.2363	.2927	.3491	.4055	.4620	.5184	.5748	.6312	40	27.0833
4	.0141	.0705	.1270	.1834	.2398	.2962	.3526	.4091	.4655	.5219	.5783	.6348	50	33.8542
5	.0176	.0741	.1305	.1869	.2433	.2998	.3562	.4126	.4690	.5254	.5819	.6383	60	40.6250
6	.0212	.0776	.1340	.1904	.2469	.3033	.3597	.4161	.4725	.5290	.5854	.6418	70	47.3958
7	.0247	.0811	.1375	.1940	.2504	.3068	.3632	.4197	.4761	.5325	.5889	.6453	80	54.1667
8	.0282	.0846	.1411	.1975	.2539	.3103	.3668	.4232	.4796	.5360	.5924	.6489	90	60.9375
9	.0317	.0882	.1446	.2010	.2574	.3139	.3703	.4267	.4831	.5396	.5960	.6524	100	67.7083
10	.0353	.0917	.1481	.2045	.2610	.3174	.3738	.4302	.4867	.5431	.5995	.6559		
11	.0388	.0952	.1516	.2081	.2645	.3209	.3773	.4338	.4902	.5466	.6030	.6595		
12	.0423	.0987	.1552	.2116	.2680	.3244	.3809	.4373	.4937	.5501	.6066	.6630		
13	.0458	.1023	.1587	.2151	.2715	.3280	.3844	.4408	.4972	.5537	.6101	.6665		
14	.0494	.1058	.1622	.2186	.2751	.3315	.3879	.4443	.5008	.5572	.6136	.6700		
15	.0529	.1093	.1657	.2222	.2786	.3350	.3914	.4479	.5043	.5607	.6171	.6736		

Hypotenuse

0	.0000	.1006	.2013	.3019	.4026	.5032	.6038	.7045	.8051	.9057	1.0064	1.1070	10	12.0766
1	.0063	.1069	.2076	.3082	.4088	.5095	.6101	.7108	.8114	.9120	1.0127	1.1133	20	24.1532
2	.0126	.1132	.2139	.3145	.4151	.5158	.6164	.7170	.8177	.9183	1.0190	1.1196	30	36.2298
3	.0189	.1195	.2201	.3208	.4214	.5221	.6227	.7233	.8240	.9246	1.0253	1.1259	40	48.3064
4	.0252	.1258	.2264	.3271	.4277	.5284	.6290	.7296	.8303	.9309	1.0315	1.1322	50	60.3830
5	.0314	.1321	.2327	.3334	.4340	.5346	.6353	.7359	.8366	.9372	1.0378	1.1385	60	72.4596
6	.0377	.1384	.2390	.3397	.4403	.5409	.6416	.7422	.8428	.9435	1.0441	1.1448	70	84.5362
7	.0440	.1447	.2453	.3459	.4466	.5472	.6479	.7485	.8491	.9498	1.0504	1.1511	80	96.6128
8	.0503	.1510	.2516	.3522	.4529	.5535	.6541	.7548	.8554	.9561	1.0567	1.1573	90	108.6894
9	.0566	.1572	.2579	.3585	.4592	.5598	.6604	.7611	.8617	.9624	1.0630	1.1636	100	120.7660
10	.0629	.1635	.2642	.3648	.4655	.5661	.6667	.7674	.8680	.9686	1.0693	1.1699		
11	.0692	.1698	.2705	.3711	.4717	.5724	.6730	.7737	.8743	.9749	1.0756	1.1762		
12	.0755	.1761	.2768	.3774	.4780	.5787	.6793	.7799	.8806	.9812	1.0819	1.1825		
13	.0818	.1824	.2830	.3837	.4843	.5850	.6856	.7862	.8869	.9875	1.0882	1.1888		
14	.0881	.1887	.2893	.3900	.4906	.5913	.6919	.7925	.8932	.9938	1.0944	1.1951		
15	.0943	.1950	.2956	.3963	.4969	.5975	.6982	.7988	.8995	1.0001	1.1007	1.2014		

Equivalent Angle $34^{\circ} 18' 26''$						Altitude					Batter $8\frac{3}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0569	.1137	.1706	.2274	.2843	.3411	.3980	.4549	.5117	.5686	.6254	10	6.8229
1	.0036	.0604	.1173	.1741	.2310	.2878	.3447	.4016	.4584	.5153	.5721	.6290	20	13.6458
2	.0071	.0640	.1208	.1777	.2345	.2914	.3483	.4051	.4620	.5188	.5757	.6325	30	20.4688
3	.0107	.0675	.1244	.1812	.2381	.2949	.3518	.4087	.4655	.5224	.5792	.6361	40	27.2917
4	.0142	.0711	.1279	.1848	.2416	.2985	.3554	.4122	.4691	.5259	.5828	.6396	50	34.1146
5	.0178	.0746	.1315	.1883	.2452	.3021	.3589	.4158	.4726	.5295	.5863	.6432	60	40.9375
6	.0213	.0782	.1350	.1919	.2488	.3056	.3625	.4193	.4762	.5330	.5899	.6468	70	47.7604
7	.0249	.0817	.1386	.1954	.2523	.3092	.3660	.4229	.4797	.5366	.5935	.6503	80	54.5833
8	.0284	.0853	.1421	.1990	.2559	.3127	.3696	.4264	.4833	.5401	.5970	.6539	90	61.4063
9	.0320	.0888	.1457	.2026	.2594	.3163	.3731	.4300	.4868	.5437	.6006	.6574	100	68.2292
10	.0355	.0924	.1493	.2061	.2630	.3198	.3767	.4335	.4904	.5473	.6041	.6610		
11	.0391	.0959	.1528	.2097	.2665	.3234	.3802	.4371	.4940	.5508	.6077	.6645		
12	.0426	.0995	.1564	.2132	.2701	.3269	.3838	.4406	.4975	.5544	.6112	.6681		
13	.0462	.1031	.1599	.2168	.2736	.3305	.3873	.4442	.5011	.5579	.6148	.6716		
14	.0498	.1066	.1635	.2203	.2772	.3340	.3909	.4478	.5046	.5615	.6183	.6752		
15	.0533	.1102	.1670	.2239	.2807	.3376	.3944	.4513	.5082	.5650	.6219	.6787		

Hypothénuse

0	.0000	.1009	.2018	.3026	.4035	.5044	.6053	.7062	.8071	.9079	1.0088	1.1097	10	12.1059
1	.0063	.1072	.2081	.3090	.4098	.5107	.6116	.7125	.8134	.9142	1.0151	1.1160	20	24.2117
2	.0126	.1135	.2144	.3153	.4161	.5170	.6179	.7188	.8197	.9206	1.0214	1.1223	30	36.3176
3	.0189	.1198	.2207	.3216	.4224	.5233	.6242	.7251	.8260	.9269	1.0277	1.1286	40	48.4235
4	.0252	.1261	.2270	.3279	.4287	.5296	.6305	.7314	.8323	.9332	1.0340	1.1349	50	60.5294
5	.0315	.1324	.2333	.3342	.4351	.5359	.6368	.7377	.8386	.9395	1.0403	1.1412	60	72.6352
6	.0378	.1387	.2396	.3405	.4414	.5422	.6431	.7440	.8449	.9458	1.0467	1.1475	70	84.7411
7	.0441	.1450	.2459	.3468	.4477	.5485	.6494	.7503	.8512	.9521	1.0530	1.1538	80	96.8470
8	.0504	.1513	.2522	.3531	.4540	.5549	.6557	.7566	.8575	.9584	1.0593	1.1601	90	108.9529
9	.0567	.1576	.2585	.3594	.4603	.5612	.6620	.7629	.8638	.9647	1.0656	1.1665	100	121.0587
10	.0631	.1639	.2648	.3657	.4666	.5675	.6683	.7692	.8701	.9710	1.0719	1.1728		
11	.0694	.1702	.2711	.3720	.4729	.5738	.6747	.7755	.8764	.9773	1.0782	1.1791		
12	.0757	.1765	.2774	.3783	.4792	.5801	.6810	.7818	.8827	.9836	1.0845	1.1854		
13	.0820	.1828	.2837	.3846	.4855	.5864	.6873	.7881	.8890	.9899	1.0908	1.1917		
14	.0883	.1892	.2900	.3909	.4918	.5927	.6936	.7944	.8953	.9962	1.0971	1.1980		
15	.0946	.1955	.2963	.3972	.4981	.5990	.6999	.8008	.9016	1.0025	1.1034	1.2043		

Equivalent Angle 34° 30' 31"						Altitude						Batter 8½ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet		
0	.0000	.0573	.1146	.1719	.2292	.2865	.3438	.4010	.4583	.5156	.5729	.6302	10	6.8750	
1	.0036	.0609	.1182	.1755	.2327	.2900	.3473	.4046	.4619	.5192	.5765	.6338	20	13.7500	
2	.0072	.0644	.1217	.1790	.2363	.2936	.3509	.4082	.4655	.5228	.5801	.6374	30	20.6250	
3	.0107	.0680	.1253	.1826	.2399	.2972	.3545	.4118	.4691	.5264	.5837	.6410	40	27.5000	
4	.0143	.0716	.1289	.1862	.2435	.3008	.3581	.4154	.4727	.5299	.5872	.6445	50	34.3750	
5	.0179	.0752	.1325	.1898	.2471	.3044	.3617	.4189	.4762	.5335	.5908	.6481	60	41.2500	
6	.0215	.0788	.1361	.1934	.2507	.3079	.3652	.4225	.4798	.5371	.5944	.6517	70	48.1250	
7	.0251	.0824	.1396	.1969	.2542	.3115	.3688	.4261	.4834	.5407	.5980	.6553	80	55.0000	
8	.0286	.0859	.1432	.2005	.2578	.3151	.3724	.4297	.4870	.5443	.6016	.6589	90	61.8750	
9	.0322	.0895	.1468	.2041	.2614	.3187	.3760	.4333	.4906	.5479	.6051	.6624	100	68.7500	
10	.0358	.0931	.1504	.2077	.2650	.3223	.3796	.4368	.4941	.5514	.6087	.6660			
11	.0394	.0967	.1540	.2113	.2686	.3258	.3831	.4404	.4977	.5550	.6123	.6696			
12	.0430	.1003	.1576	.2148	.2721	.3294	.3867	.4440	.5013	.5586	.6159	.6732			
13	.0465	.1038	.1611	.2184	.2757	.3330	.3903	.4476	.5049	.5622	.6195	.6768			
14	.0501	.1074	.1647	.2220	.2793	.3366	.3939	.4512	.5085	.5658	.6230	.6803			
15	.0537	.1110	.1683	.2256	.2829	.3402	.3975	.4548	.5120	.5693	.6266	.6839			

Hypotenuse

0	.0000	.1011	.2023	.3034	.4045	.5056	.6068	.7079	.8090	.9101	1.0113	1.1124	10	12.1353
1	.0063	.1074	.2086	.3097	.4108	.5120	.6131	.7142	.8153	.9165	1.0176	1.1187	20	24.2706
2	.0126	.1138	.2149	.3160	.4172	.5183	.6194	.7205	.8217	.9228	1.0239	1.1250	30	36.4059
3	.0190	.1201	.2212	.3223	.4235	.5246	.6257	.7269	.8280	.9291	1.0302	1.1314	40	48.5412
4	.0253	.1264	.2275	.3287	.4298	.5309	.6320	.7332	.8343	.9354	1.0366	1.1377	50	60.6765
5	.0316	.1327	.2339	.3350	.4361	.5372	.6384	.7395	.8406	.9418	1.0429	1.1440	60	72.8118
6	.0379	.1391	.2402	.3413	.4424	.5436	.6447	.7458	.8469	.9481	1.0492	1.1503	70	84.9471
7	.0442	.1454	.2465	.3476	.4488	.5499	.6510	.7521	.8533	.9544	1.0555	1.1566	80	97.0824
8	.0506	.1517	.2528	.3539	.4551	.5562	.6573	.7585	.8596	.9607	1.0618	1.1630	90	109.2177
9	.0569	.1580	.2591	.3603	.4614	.5625	.6636	.7648	.8659	.9670	1.0682	1.1693	100	121.3530
10	.0632	.1643	.2655	.3666	.4677	.5688	.6700	.7711	.8722	.9734	1.0745	1.1756		
11	.0695	.1707	.2718	.3729	.4740	.5752	.6763	.7774	.8785	.9797	1.0808	1.1819		
12	.0758	.1770	.2781	.3792	.4804	.5815	.6826	.7837	.8849	.9860	1.0871	1.1882		
13	.0822	.1833	.2844	.3855	.4867	.5878	.6889	.7901	.8912	.9923	1.0934	1.1946		
14	.0885	.1896	.2907	.3919	.4930	.5941	.6953	.7964	.8975	.9986	1.0998	1.1909		
15	.0948	.1959	.2971	.3982	.4993	.6004	.7016	.8027	.9038	1.0050	1.1061	1.2072		

Equivalent Angle 34° 42' 39"					Altitude					Batter 8 ⁵ / ₁₆ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0577	.1155	.1732	.2309	.2886	.3464	.4041	.4618	.5195	.5773	.6350	10	6.9271
1	.0036	.0613	.1191	.1768	.2345	.2922	.3500	.4077	.4654	.5231	.5809	.6386	20	13.8542
2	.0072	.0649	.1227	.1804	.2381	.2958	.3536	.4113	.4690	.5267	.5845	.6422	30	20.7813
3	.0108	.0685	.1263	.1840	.2417	.2995	.3572	.4149	.4726	.5304	.5881	.6458	40	27.7083
4	.0144	.0722	.1299	.1876	.2453	.3031	.3608	.4185	.4762	.5340	.5917	.6494	50	34.6354
5	.0180	.0758	.1335	.1912	.2489	.3067	.3644	.4221	.4798	.5376	.5953	.6530	60	41.5625
6	.0216	.0794	.1371	.1948	.2525	.3103	.3680	.4257	.4835	.5412	.5989	.6566	70	48.4896
7	.0253	.0830	.1407	.1984	.2562	.3139	.3716	.4293	.4871	.5448	.6025	.6602	80	55.3167
8	.0289	.0866	.1443	.2020	.2598	.3175	.3752	.4329	.4907	.5484	.6061	.6638	90	62.3438
9	.0325	.0902	.1479	.2056	.2634	.3211	.3788	.4366	.4943	.5520	.6097	.6675	100	69.2708
10	.0361	.0938	.1515	.2093	.2670	.3247	.3824	.4402	.4979	.5556	.6133	.6711		
11	.0397	.0974	.1551	.2129	.2706	.3283	.3860	.4438	.5015	.5592	.6169	.6747		
12	.0433	.1010	.1587	.2165	.2742	.3319	.3896	.4474	.5051	.5628	.6206	.6783		
13	.0469	.1046	.1624	.2201	.2778	.3355	.3933	.4510	.5087	.5665	.6242	.6819		
14	.0505	.1082	.1660	.2237	.2814	.3391	.3969	.4546	.5123	.5701	.6278	.6855		
15	.0541	.1118	.1696	.2273	.2850	.3427	.4005	.4582	.5159	.5737	.6314	.6891		

Hypothénuse

0	.0000	.1014	.2027	.3041	.4055	.5069	.6082	.7096	.8110	.9124	1.0137	1.1151	10	12.1649
1	.0063	.1077	.2091	.3105	.4118	.5132	.6146	.7160	.8173	.9187	1.0201	1.1215	20	24.3298
2	.0127	.1140	.2154	.3168	.4182	.5195	.6209	.7223	.8237	.9250	1.0264	1.1278	30	36.4947
3	.0190	.1204	.2218	.3231	.4245	.5259	.6273	.7286	.8300	.9314	1.0327	1.1341	40	48.6595
4	.0253	.1267	.2281	.3295	.4308	.5322	.6336	.7350	.8363	.9377	1.0391	1.1405	50	60.8244
5	.0317	.1331	.2344	.3358	.4372	.5385	.6399	.7413	.8427	.9440	1.0454	1.1468	60	72.9893
6	.0380	.1394	.2408	.3421	.4435	.5449	.6463	.7476	.8490	.9504	1.0518	1.1531	70	85.1542
7	.0444	.1457	.2471	.3485	.4498	.5512	.6526	.7540	.8553	.9567	1.0581	1.1595	80	97.3191
8	.0507	.1521	.2534	.3548	.4562	.5576	.6589	.7603	.8617	.9631	1.0644	1.1658	90	109.4840
9	.0570	.1584	.2598	.3611	.4625	.5639	.6653	.7666	.8680	.9694	1.0708	1.1721	100	121.6489
10	.0634	.1647	.2661	.3675	.4689	.5702	.6716	.7730	.8744	.9757	1.0771	1.1785		
11	.0697	.1711	.2724	.3738	.4752	.5766	.6779	.7793	.8807	.9821	1.0834	1.1848		
12	.0760	.1774	.2788	.3802	.4815	.5829	.6843	.7856	.8870	.9884	1.0898	1.1911		
13	.0824	.1837	.2851	.3865	.4879	.5892	.6906	.7920	.8934	.9947	1.0961	1.1975		
14	.0887	.1901	.2915	.3928	.4942	.5956	.6969	.7983	.8997	1.0011	1.1024	1.2038		
15	.0950	.1964	.2978	.3992	.5005	.6019	.7033	.8047	.9060	1.0074	1.1088	1.2102		

Equivalent Angle 34° 54' 43"

Altitude

Batter 8 $\frac{3}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0582	.1163	.1745	.2326	.2908	.3490	.4071	.4653	.5234	.5816	.6398	10	6.9792
1	.0036	.0618	.1200	.1781	.2363	.2944	.3526	.4108	.4689	.5271	.5852	.6434	20	13.9583
2	.0073	.0654	.1236	.1817	.2399	.2981	.3562	.4144	.4725	.5307	.5889	.6470	30	20.9375
3	.0109	.0691	.1272	.1854	.2435	.3017	.3599	.4180	.4762	.5343	.5925	.6507	40	27.9167
4	.0145	.0727	.1309	.1890	.2472	.3053	.3635	.4217	.4798	.5380	.5961	.6543	50	34.8958
5	.0182	.0763	.1345	.1927	.2508	.3090	.3671	.4253	.4835	.5416	.5998	.6579	60	41.8750
6	.0218	.0800	.1381	.1963	.2544	.3126	.3708	.4289	.4871	.5452	.6034	.6616	70	48.8542
7	.0254	.0836	.1418	.1999	.2581	.3162	.3744	.4326	.4907	.5489	.6070	.6652	80	55.8333
8	.0291	.0872	.1454	.2036	.2617	.3199	.3780	.4362	.4944	.5525	.6107	.6688	90	62.8125
9	.0327	.0909	.1490	.2072	.2654	.3235	.3817	.4398	.4980	.5562	.6143	.6725	100	69.7917
10	.0363	.0945	.1527	.2108	.2690	.3271	.3853	.4435	.5016	.5598	.6179	.6761		
11	.0400	.0981	.1563	.2145	.2726	.3308	.3889	.4471	.5053	.5634	.6216	.6797		
12	.0436	.1018	.1599	.2181	.2763	.3344	.3926	.4507	.5089	.5671	.6252	.6834		
13	.0473	.1054	.1636	.2217	.2799	.3381	.3962	.4544	.5125	.5707	.6289	.6870		
14	.0509	.1090	.1672	.2254	.2835	.3417	.3998	.4580	.5162	.5743	.6325	.6906		
15	.0545	.1127	.1708	.2290	.2872	.3453	.4035	.4616	.5198	.5780	.6361	.6943		

Hypothénuse

0	.0000	.1016	.2032	.3049	.4065	.5081	.6097	.7114	.8130	.9146	1.0162	1.1178	10	12.1946
1	.0064	.1080	.2096	.3112	.4128	.5145	.6161	.7177	.8193	.9209	1.0226	1.1242	20	24.3892
2	.0127	.1143	.2159	.3176	.4192	.5208	.6224	.7241	.8257	.9273	1.0289	1.1305	30	36.5839
3	.0191	.1207	.2223	.3239	.4255	.5272	.6288	.7304	.8320	.9337	1.0353	1.1369	40	48.7785
4	.0254	.1270	.2286	.3303	.4319	.5335	.6351	.7368	.8384	.9400	1.0416	1.1432	50	60.9731
5	.0318	.1334	.2350	.3366	.4382	.5399	.6415	.7431	.8447	.9464	1.0480	1.1496	60	73.1677
6	.0381	.1397	.2414	.3430	.4446	.5462	.6478	.7495	.8511	.9527	1.0543	1.1559	70	85.3623
7	.0445	.1461	.2477	.3493	.4509	.5526	.6542	.7558	.8574	.9591	1.0607	1.1623	80	97.5570
8	.0508	.1524	.2541	.3557	.4573	.5589	.6605	.7622	.8638	.9654	1.0670	1.1687	90	109.7516
9	.0572	.1588	.2604	.3620	.4636	.5653	.6669	.7685	.8701	.9718	1.0734	1.1750	100	121.9462
10	.0635	.1651	.2668	.3684	.4700	.5716	.6732	.7749	.8765	.9781	1.0797	1.1814		
11	.0699	.1715	.2731	.3747	.4764	.5780	.6796	.7812	.8828	.9845	1.0861	1.1877		
12	.0762	.1778	.2795	.3811	.4827	.5843	.6859	.7876	.8892	.9908	1.0924	1.1941		
13	.0826	.1842	.2858	.3874	.4891	.5907	.6923	.7939	.8955	.9972	1.0988	1.2004		
14	.0889	.1905	.2922	.3938	.4954	.5970	.6987	.8003	.9019	1.0035	1.1051	1.2068		
15	.0953	.1969	.2985	.4001	.5018	.6034	.7050	.8066	.9082	1.0099	1.1115	1.2131		

Equivalent Angle 35° 06' 43"						Altitude					Batter 8 ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0586	.1172	.1758	.2344	.2930	.3516	.4102	.4688	.5273	.5859	.6445	10	7.0313
1	.0037	.0623	.1208	.1794	.2380	.2966	.3552	.4138	.4724	.5310	.5896	.6482	20	14.0625
2	.0073	.0659	.1245	.1831	.2417	.3003	.3589	.4175	.4761	.5347	.5933	.6519	30	21.0938
3	.0110	.0696	.1282	.1868	.2454	.3040	.3625	.4211	.4797	.5383	.5969	.6555	40	28.1250
4	.0146	.0732	.1318	.1904	.2490	.3076	.3662	.4248	.4834	.5420	.6006	.6592	50	35.1563
5	.0183	.0769	.1355	.1941	.2527	.3113	.3699	.4285	.4871	.5457	.6042	.6628	60	42.1875
6	.0220	.0806	.1392	.1978	.2563	.3149	.3735	.4321	.4907	.5493	.6079	.6665	70	49.2188
7	.0256	.0842	.1428	.2014	.2600	.3186	.3772	.4358	.4944	.5530	.6116	.6702	80	56.2500
8	.0293	.0879	.1465	.2051	.2637	.3223	.3809	.4395	.4980	.5566	.6152	.6738	90	63.2813
9	.0330	.0916	.1501	.2087	.2673	.3259	.3845	.4431	.5017	.5603	.6189	.6775	100	70.3125
10	.0366	.0952	.1538	.2124	.2710	.3296	.3882	.4468	.5054	.5640	.6226	.6812		
11	.0403	.0989	.1575	.2161	.2747	.3333	.3918	.4504	.5090	.5676	.6262	.6848		
12	.0439	.1025	.1611	.2197	.2783	.3369	.3955	.4541	.5127	.5713	.6299	.6885		
13	.0476	.1062	.1648	.2234	.2820	.3406	.3992	.4578	.5164	.5750	.6335	.6921		
14	.0513	.1099	.1685	.2271	.2856	.3442	.4028	.4614	.5200	.5786	.6372	.6958		
15	.0549	.1135	.1721	.2307	.2893	.3479	.4065	.4651	.5237	.5823	.6409	.6995		

Hypothenuse

0	.0000	.1019	.2037	.3056	.4075	.5094	.6112	.7131	.8150	.9168	1.0187	1.1206	10	12.2245
1	.0064	.1082	.2101	.3120	.4139	.5157	.6176	.7195	.8213	.9232	1.0251	1.1269	20	24.4490
2	.0127	.1146	.2165	.3183	.4202	.5221	.6240	.7258	.8277	.9296	1.0314	1.1333	30	36.6735
3	.0191	.1210	.2228	.3247	.4266	.5285	.6303	.7322	.8341	.9359	1.0378	1.1397	40	48.8980
4	.0255	.1273	.2292	.3311	.4330	.5348	.6367	.7386	.8404	.9423	1.0442	1.1460	50	61.1225
5	.0318	.1337	.2356	.3374	.4393	.5412	.6431	.7449	.8468	.9487	1.0505	1.1524	60	73.3470
6	.0382	.1401	.2419	.3438	.4457	.5476	.6494	.7513	.8532	.9550	1.0569	1.1588	70	85.5715
7	.0446	.1464	.2483	.3502	.4521	.5539	.6558	.7577	.8595	.9614	1.0633	1.1651	80	97.7960
8	.0509	.1528	.2547	.3565	.4584	.5603	.6622	.7640	.8659	.9678	1.0696	1.1715	90	110.0205
9	.0573	.1592	.2610	.3629	.4648	.5667	.6685	.7704	.8723	.9741	1.0760	1.1779	100	122.2450
10	.0637	.1655	.2674	.3693	.4712	.5730	.6749	.7768	.8786	.9805	1.0824	1.1842		
11	.0700	.1719	.2738	.3756	.4775	.5794	.6813	.7831	.8850	.9869	1.0887	1.1906		
12	.0764	.1783	.2801	.3820	.4839	.5858	.6876	.7895	.8914	.9932	1.0951	1.1970		
13	.0828	.1846	.2865	.3884	.4903	.5921	.6940	.7959	.8977	.9996	1.1015	1.2033		
14	.0891	.1910	.2929	.3947	.4966	.5985	.7004	.8022	.9041	1.0060	1.1078	1.2097		
15	.0955	.1974	.2992	.4011	.5030	.6049	.7067	.8086	.9105	1.0123	1.1142	1.2161		

Equivalent Angle 35° 18' 40"

Altitude

Batter 8½ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0590	.1181	.1771	.2361	.2951	.3542	.4132	.4722	.5313	.5903	.6493	10	7.0833
1	.0037	.0627	.1217	.1808	.2398	.2988	.3579	.4169	.4759	.5349	.5940	.6530	20	14.1667
2	.0074	.0664	.1254	.1845	.2435	.3025	.3615	.4206	.4796	.5386	.5977	.6567	30	21.2500
3	.0111	.0701	.1291	.1882	.2472	.3062	.3652	.4243	.4833	.5423	.6013	.6604	40	28.3333
4	.0148	.0738	.1328	.1918	.2509	.3099	.3689	.4280	.4870	.5460	.6050	.6641	50	35.4167
5	.0184	.0775	.1365	.1955	.2546	.3136	.3726	.4316	.4907	.5497	.6087	.6678	60	42.5000
6	.0221	.0812	.1402	.1992	.2582	.3173	.3763	.4353	.4944	.5534	.6124	.6714	70	49.5833
7	.0258	.0849	.1439	.2029	.2619	.3210	.3800	.4390	.4980	.5571	.6161	.6751	80	56.6667
8	.0295	.0885	.1476	.2066	.2656	.3247	.3837	.4427	.5017	.5608	.6198	.6788	90	63.7500
9	.0332	.0922	.1513	.2103	.2693	.3283	.3874	.4464	.5054	.5645	.6235	.6825	100	70.8333
10	.0369	.0959	.1549	.2140	.2730	.3320	.3911	.4501	.5091	.5681	.6272	.6862		
11	.0406	.0996	.1586	.2177	.2767	.3357	.3947	.4538	.5128	.5718	.6309	.6899		
12	.0443	.1033	.1623	.2214	.2804	.3394	.3984	.4575	.5165	.5755	.6345	.6936		
13	.0480	.1070	.1660	.2250	.2841	.3431	.4021	.4612	.5202	.5792	.6382	.6973		
14	.0516	.1107	.1697	.2287	.2878	.3468	.4058	.4648	.5239	.5829	.6419	.7010		
15	.0553	.1144	.1734	.2324	.2914	.3505	.4095	.4685	.5276	.5866	.6456	.7046		

Hypotenuse

0	.0000	.1021	.2042	.3064	.4085	.5106	.6127	.7148	.8170	.9191	1.0212	1.1233	10	12.2545
1	.0064	.1085	.2106	.3127	.4149	.5170	.6191	.7212	.8234	.9255	1.0276	1.1297	20	24.5091
2	.0128	.1149	.2170	.3191	.4212	.5234	.6255	.7276	.8297	.9319	1.0340	1.1361	30	36.7636
3	.0191	.1213	.2234	.3255	.4276	.5298	.6319	.7340	.8361	.9382	1.0404	1.1425	40	49.0181
4	.0255	.1277	.2298	.3319	.4340	.5361	.6383	.7404	.8425	.9446	1.0467	1.1489	50	61.2727
5	.0319	.1340	.2362	.3383	.4404	.5425	.6446	.7468	.8489	.9510	1.0531	1.1552	60	73.5272
6	.0383	.1404	.2425	.3447	.4468	.5489	.6510	.7531	.8553	.9574	1.0595	1.1616	70	85.7817
7	.0447	.1468	.2489	.3510	.4532	.5553	.6574	.7595	.8616	.9638	1.0659	1.1680	80	98.0363
8	.0511	.1532	.2553	.3574	.4595	.5617	.6638	.7659	.8680	.9702	1.0723	1.1744	90	110.2908
9	.0574	.1596	.2617	.3638	.4659	.5680	.6702	.7723	.8744	.9765	1.0787	1.1808	100	122.5453
10	.0638	.1659	.2681	.3702	.4723	.5744	.6766	.7787	.8808	.9829	1.0850	1.1872		
11	.0702	.1723	.2745	.3766	.4787	.5808	.6829	.7851	.8872	.9893	1.0914	1.1935		
12	.0766	.1787	.2808	.3830	.4851	.5872	.6893	.7914	.8936	.9957	1.0978	1.1999		
13	.0830	.1851	.2872	.3893	.4915	.5936	.6957	.7978	.8999	1.0021	1.1042	1.2063		
14	.0894	.1915	.2936	.3957	.4978	.6000	.7021	.8042	.9063	1.0084	1.1106	1.2127		
15	.0957	.1979	.3000	.4021	.5042	.6063	.7085	.8106	.9127	1.0148	1.1169	1.2191		

Equivalent Angle 35° 30' 34"						Altitude					Batter 8 $\frac{9}{16}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0595	.1189	.1784	.2378	.2973	.3568	.4162	.4757	.5352	.5946	.6541	10 7.1354
1	.0037	.0632	.1226	.1821	.2416	.3010	.3605	.4199	.4794	.5389	.5983	.6578	20 14.2708
2	.0074	.0669	.1264	.1858	.2453	.3047	.3642	.4237	.4831	.5426	.6021	.6615	30 21.4063
3	.0111	.0706	.1301	.1895	.2490	.3085	.3679	.4274	.4868	.5463	.6058	.6652	40 28.5417
4	.0149	.0743	.1338	.1933	.2527	.3122	.3716	.4311	.4906	.5500	.6095	.6689	50 35.6771
5	.0186	.0780	.1375	.1970	.2564	.3159	.3754	.4348	.4943	.5537	.6132	.6727	60 42.8125
6	.0223	.0818	.1412	.2007	.2601	.3196	.3791	.4385	.4980	.5575	.6169	.6764	70 49.9479
7	.0260	.0855	.1449	.2044	.2639	.3233	.3828	.4422	.5017	.5612	.6206	.6801	80 57.0833
8	.0297	.0892	.1487	.2081	.2676	.3270	.3865	.4460	.5054	.5649	.6243	.6838	90 64.2188
9	.0334	.0929	.1524	.2118	.2713	.3308	.3902	.4497	.5091	.5686	.6281	.6875	100 71.3542
10	.0372	.0966	.1561	.2155	.2750	.3345	.3939	.4534	.5129	.5723	.6318	.6912	
11	.0409	.1003	.1598	.2193	.2787	.3382	.3977	.4571	.5166	.5760	.6355	.6950	
12	.0446	.1041	.1635	.2230	.2824	.3419	.4014	.4608	.5203	.5798	.6392	.6987	
13	.0483	.1078	.1672	.2267	.2862	.3456	.4051	.4645	.5240	.5835	.6429	.7024	
14	.0520	.1115	.1710	.2304	.2899	.3493	.4088	.4683	.5277	.5872	.6466	.7061	
15	.0557	.1152	.1747	.2341	.2936	.3531	.4125	.4720	.5314	.5909	.6504	.7098	

Hypotenuse

0	.0000	.1024	.2047	.3071	.4095	.5119	.6142	.7166	.8190	.9214	1.0237	1.1261	10 12.2847
1	.0064	.1088	.2111	.3135	.4159	.5183	.6206	.7230	.8254	.9278	1.0301	1.1325	20 24.5694
2	.0128	.1152	.2175	.3199	.4223	.5247	.6270	.7294	.8318	.9342	1.0365	1.1389	30 36.8541
3	.0192	.1216	.2239	.3263	.4287	.5311	.6334	.7358	.8382	.9405	1.0429	1.1453	40 49.1389
4	.0256	.1280	.2303	.3327	.4351	.5375	.6398	.7422	.8446	.9469	1.0493	1.1517	50 61.4236
5	.0320	.1344	.2367	.3391	.4415	.5439	.6462	.7486	.8510	.9533	1.0557	1.1581	60 73.7083
6	.0384	.1408	.2431	.3455	.4479	.5503	.6526	.7550	.8574	.9597	1.0621	1.1645	70 85.9930
7	.0448	.1472	.2495	.3519	.4543	.5567	.6590	.7614	.8638	.9661	1.0685	1.1709	80 98.2777
8	.0512	.1536	.2559	.3583	.4607	.5630	.6654	.7678	.8702	.9725	1.0749	1.1773	90 110.5624
9	.0576	.1600	.2623	.3647	.4671	.5694	.6718	.7742	.8766	.9789	1.0813	1.1837	100 122.8471
10	.0640	.1664	.2687	.3711	.4735	.5758	.6782	.7806	.8830	.9853	1.0877	1.1901	
11	.0704	.1728	.2751	.3775	.4799	.5822	.6846	.7870	.8894	.9917	1.0941	1.1965	
12	.0768	.1792	.2815	.3839	.4863	.5886	.6910	.7934	.8958	.9981	1.1005	1.2029	
13	.0832	.1856	.2879	.3903	.4927	.5950	.6974	.7998	.9022	1.0045	1.1069	1.2093	
14	.0896	.1919	.2943	.3967	.4991	.6014	.7038	.8062	.9086	1.0109	1.1133	1.2157	
15	.0960	.1983	.3007	.4031	.5055	.6078	.7102	.8126	.9150	1.0173	1.1197	1.2221	

Equivalent Angle 35° 42' 24"

Altitude

Batter 8 $\frac{5}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0599	.1198	.1797	.2396	.2995	.3594	.4193	.4792	.5391	.5990	.6589	10	7.1875
1	.0037	.0636	.1235	.1834	.2433	.3032	.3631	.4230	.4829	.5428	.6027	.6626	20	14.3750
2	.0075	.0674	.1273	.1872	.2471	.3070	.3669	.4268	.4867	.5465	.6064	.6663	30	21.5625
3	.0112	.0711	.1310	.1909	.2508	.3107	.3706	.4305	.4904	.5503	.6102	.6701	40	28.7500
4	.0150	.0749	.1348	.1947	.2546	.3145	.3743	.4342	.4941	.5540	.6139	.6738	50	35.9375
5	.0187	.0786	.1385	.1984	.2583	.3182	.3781	.4380	.4979	.5578	.6177	.6776	60	43.1250
6	.0225	.0824	.1423	.2021	.2620	.3219	.3818	.4417	.5016	.5615	.6214	.6813	70	50.3125
7	.0262	.0861	.1460	.2059	.2658	.3257	.3856	.4455	.5054	.5653	.6252	.6851	80	57.5000
8	.0299	.0898	.1497	.2096	.2695	.3294	.3893	.4492	.5091	.5690	.6289	.6888	90	64.6875
9	.0337	.0936	.1535	.2134	.2733	.3332	.3931	.4530	.5129	.5728	.6327	.6925	100	71.8750
10	.0374	.0973	.1572	.2171	.2770	.3369	.3968	.4567	.5166	.5765	.6364	.6963		
11	.0412	.1011	.1610	.2209	.2808	.3407	.4006	.4604	.5203	.5802	.6401	.7000		
12	.0449	.1048	.1647	.2246	.2845	.3444	.4043	.4642	.5241	.5840	.6439	.7038		
13	.0487	.1086	.1685	.2284	.2882	.3481	.4080	.4679	.5278	.5877	.6476	.7075		
14	.0524	.1123	.1722	.2321	.2920	.3519	.4118	.4717	.5316	.5915	.6514	.7113		
15	.0562	.1160	.1759	.2358	.2957	.3556	.4155	.4754	.5353	.5952	.6551	.7150		

Hypothenuse

0	.0000	.1026	.2053	.3079	.4105	.5131	.6158	.7184	.8210	.9236	1.0263	1.1289	10	12.3150
1	.0064	.1090	.2117	.3143	.4169	.5195	.6222	.7248	.8274	.9300	1.0327	1.1353	20	24.6301
2	.0128	.1155	.2181	.3207	.4233	.5260	.6286	.7312	.8338	.9365	1.0391	1.1417	30	36.9451
3	.0192	.1219	.2245	.3271	.4297	.5324	.6350	.7376	.8402	.9429	1.0455	1.1481	40	49.2602
4	.0257	.1283	.2309	.3335	.4362	.5388	.6414	.7440	.8467	.9493	1.0519	1.1545	50	61.5752
5	.0321	.1347	.2373	.3399	.4426	.5452	.6478	.7504	.8531	.9557	1.0583	1.1609	60	73.8902
6	.0385	.1411	.2437	.3464	.4490	.5516	.6542	.7569	.8595	.9621	1.0647	1.1674	70	86.2053
7	.0449	.1475	.2501	.3528	.4554	.5580	.6607	.7633	.8659	.9685	1.0712	1.1738	80	98.5203
8	.0513	.1539	.2566	.3592	.4618	.5644	.6671	.7697	.8723	.9749	1.0776	1.1802	90	110.8353
9	.0577	.1604	.2630	.3656	.4682	.5709	.6735	.7761	.8787	.9814	1.0840	1.1866	100	123.1504
10	.0641	.1668	.2694	.3720	.4746	.5773	.6799	.7825	.8851	.9878	1.0904	1.1930		
11	.0706	.1732	.2758	.3784	.4811	.5837	.6863	.7889	.8916	.9942	1.0968	1.1994		
12	.0770	.1796	.2822	.3848	.4875	.5901	.6927	.7953	.8980	1.0006	1.1032	1.2058		
13	.0834	.1860	.2886	.3913	.4939	.5965	.6991	.8018	.9044	1.0070	1.1096	1.2123		
14	.0898	.1924	.2950	.3977	.5003	.6029	.7055	.8082	.9108	1.0134	1.1161	1.2187		
15	.0962	.1988	.3015	.4041	.5067	.6093	.7120	.8146	.9172	1.0198	1.1225	1.2251		

Equivalent Angle 35° 54' 11"

Altitude

Batter 8 $\frac{11}{16}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0603	.1207	.1810	.2413	.3016	.3620	.4223	.4826	.5430	.6033	.6636	10	7.2396
1	.0038	.0641	.1244	.1848	.2451	.3054	.3657	.4261	.4864	.5467	.6071	.6674	20	14.4792
2	.0075	.0679	.1282	.1885	.2489	.3092	.3695	.4299	.4902	.5505	.6108	.6712	30	21.7188
3	.0113	.0716	.1320	.1923	.2526	.3130	.3733	.4336	.4940	.5543	.6146	.6749	40	28.9583
4	.0151	.0754	.1357	.1961	.2564	.3167	.3771	.4374	.4977	.5581	.6184	.6787	50	36.1979
5	.0189	.0792	.1395	.1998	.2602	.3205	.3808	.4412	.5015	.5618	.6222	.6825	60	43.4375
6	.0226	.0830	.1433	.2036	.2639	.3243	.3846	.4449	.5053	.5656	.6259	.6863	70	50.6771
7	.0264	.0867	.1471	.2074	.2677	.3280	.3884	.4487	.5090	.5694	.6297	.6900	80	57.9167
8	.0302	.0905	.1508	.2112	.2715	.3318	.3921	.4525	.5128	.5731	.6335	.6938	90	65.1563
9	.0339	.0943	.1546	.2149	.2753	.3356	.3959	.4562	.5166	.5769	.6372	.6976	100	72.3958
10	.0377	.0980	.1584	.2187	.2790	.3394	.3997	.4600	.5203	.5807	.6410	.7013		
11	.0415	.1018	.1621	.2225	.2828	.3431	.4035	.4638	.5241	.5844	.6448	.7051		
12	.0452	.1056	.1659	.2262	.2866	.3469	.4072	.4676	.5279	.5882	.6485	.7089		
13	.0490	.1093	.1697	.2300	.2903	.3507	.4110	.4713	.5317	.5920	.6523	.7126		
14	.0528	.1131	.1734	.2338	.2941	.3544	.4148	.4751	.5354	.5958	.6561	.7164		
15	.0566	.1169	.1772	.2375	.2979	.3582	.4185	.4789	.5392	.5995	.6599	.7202		

Hypotenuse

0	.0000	.1029	.2058	.3086	.4115	.5144	.6173	.7202	.8230	.9259	1.0288	1.1317	10	12.3455
1	.0064	.1093	.2122	.3151	.4179	.5208	.6237	.7266	.8295	.9323	1.0352	1.1381	20	24.6910
2	.0129	.1157	.2186	.3215	.4244	.5273	.6301	.7330	.8359	.9388	1.0417	1.1445	30	37.0365
3	.0193	.1222	.2250	.3279	.4308	.5337	.6366	.7394	.8423	.9452	1.0481	1.1510	40	49.3820
4	.0257	.1286	.2315	.3344	.4372	.5401	.6430	.7459	.8488	.9516	1.0545	1.1574	50	61.7275
5	.0321	.1350	.2379	.3408	.4437	.5465	.6494	.7523	.8552	.9581	1.0609	1.1638	60	74.0730
6	.0386	.1415	.2443	.3472	.4501	.5530	.6559	.7587	.8616	.9645	1.0674	1.1703	70	86.4186
7	.0450	.1479	.2508	.3536	.4565	.5594	.6623	.7652	.8680	.9709	1.0738	1.1767	80	98.7641
8	.0514	.1543	.2572	.3601	.4630	.5658	.6687	.7716	.8745	.9774	1.0802	1.1831	90	111.1096
9	.0579	.1607	.2636	.3665	.4694	.5723	.6751	.7780	.8809	.9838	1.0867	1.1895	100	123.4551
10	.0643	.1672	.2701	.3729	.4758	.5787	.6816	.7845	.8873	.9902	1.0931	1.1960		
11	.0707	.1736	.2765	.3794	.4822	.5851	.6880	.7909	.8938	.9966	1.0995	1.2024		
12	.0772	.1800	.2829	.3858	.4887	.5916	.6944	.7973	.9002	1.0031	1.1060	1.2088		
13	.0836	.1865	.2893	.3922	.4951	.5980	.7009	.8037	.9066	1.0095	1.1124	1.2153		
14	.0900	.1929	.2958	.3987	.5015	.6044	.7073	.8102	.9131	1.0159	1.1188	1.2217		
15	.0964	.1993	.3022	.4051	.5080	.6108	.7137	.8166	.9195	1.0224	1.1252	1.2281		

Equivalent Angle 36° 05' 54"						Altitude					Batter 8¼ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0608	.1215	.1823	.2431	.3038	.3646	.4253	.4861	.5469	.6076	.6684	10	7.2917
1	.0038	.0646	.1253	.1861	.2469	.3076	.3684	.4291	.4899	.5507	.6114	.6722	20	14.5833
2	.0076	.0684	.1291	.1899	.2507	.3114	.3722	.4329	.4937	.5545	.6152	.6760	30	21.8750
3	.0114	.0722	.1329	.1937	.2544	.3152	.3760	.4367	.4975	.5583	.6190	.6798	40	29.1667
4	.0152	.0760	.1367	.1975	.2582	.3190	.3798	.4405	.5013	.5621	.6228	.6836	50	36.4583
5	.0190	.0798	.1405	.2013	.2620	.3228	.3836	.4443	.5051	.5659	.6266	.6874	60	43.7500
6	.0228	.0836	.1443	.2051	.2658	.3266	.3874	.4481	.5089	.5697	.6304	.6912	70	51.0417
7	.0266	.0873	.1481	.2089	.2696	.3304	.3912	.4519	.5127	.5735	.6342	.6950	80	58.3333
8	.0304	.0911	.1519	.2127	.2734	.3342	.3950	.4557	.5165	.5773	.6380	.6988	90	65.6250
9	.0342	.0949	.1557	.2165	.2772	.3380	.3988	.4595	.5203	.5811	.6418	.7026	100	72.9167
10	.0380	.0987	.1595	.2203	.2810	.3418	.4026	.4633	.5241	.5849	.6456	.7064		
11	.0418	.1025	.1633	.2241	.2848	.3456	.4064	.4671	.5279	.5887	.6494	.7102		
12	.0456	.1063	.1671	.2279	.2886	.3494	.4102	.4709	.5317	.5924	.6532	.7140		
13	.0494	.1101	.1709	.2317	.2924	.3532	.4140	.4747	.5355	.5962	.6570	.7178		
14	.0532	.1139	.1747	.2355	.2962	.3570	.4178	.4785	.5393	.6000	.6608	.7216		
15	.0570	.1177	.1785	.2393	.3000	.3608	.4215	.4823	.5431	.6038	.6646	.7254		

Hypotenuse

0	.0000	.1031	.2063	.3094	.4125	.5157	.6188	.7219	.8251	.9282	1.0313	1.1345	10	12.3761
1	.0064	.1096	.2127	.3158	.4190	.5221	.6253	.7284	.8315	.9347	1.0378	1.1409	20	24.7522
2	.0129	.1160	.2192	.3223	.4254	.5286	.6317	.7348	.8380	.9411	1.0442	1.1474	30	37.1284
3	.0193	.1225	.2256	.3287	.4319	.5350	.6381	.7413	.8444	.9475	1.0507	1.1538	40	49.5045
4	.0258	.1289	.2321	.3352	.4383	.5415	.6446	.7477	.8509	.9540	1.0571	1.1603	50	61.8806
5	.0322	.1354	.2385	.3416	.4448	.5479	.6510	.7542	.8573	.9604	1.0636	1.1667	60	74.2567
6	.0387	.1418	.2449	.3481	.4512	.5543	.6575	.7606	.8638	.9669	1.0700	1.1732	70	86.6329
7	.0451	.1483	.2514	.3545	.4577	.5608	.6639	.7671	.8702	.9733	1.0765	1.1796	80	99.0090
8	.0516	.1547	.2578	.3610	.4641	.5672	.6704	.7735	.8766	.9798	1.0829	1.1860	90	111.3851
9	.0580	.1611	.2643	.3674	.4706	.5737	.6768	.7800	.8831	.9862	1.0894	1.1925	100	123.7612
10	.0645	.1676	.2707	.3739	.4770	.5801	.6833	.7864	.8895	.9927	1.0958	1.1989		
11	.0709	.1740	.2772	.3803	.4834	.5866	.6897	.7928	.8960	.9991	1.1022	1.2054		
12	.0774	.1805	.2836	.3868	.4899	.5930	.6962	.7993	.9024	1.0056	1.1087	1.2118		
13	.0838	.1869	.2901	.3932	.4963	.5995	.7026	.8057	.9089	1.0120	1.1151	1.2183		
14	.0902	.1934	.2965	.3996	.5028	.6059	.7090	.8122	.9153	1.0185	1.1216	1.2247		
15	.0967	.1998	.3030	.4061	.5092	.6124	.7155	.8186	.9218	1.0249	1.1280	1.2312		

Equivalent Angle 36° 17' 34"

Altitude

Batter 8 $\frac{13}{16}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0612	.1224	.1836	.2448	.3060	.3672	.4284	.4896	.5508	.6120	.6732	10	7.3438
1	.0038	.0650	.1262	.1874	.2486	.3098	.3710	.4322	.4934	.5546	.6158	.6770	20	14.6875
2	.0076	.0688	.1300	.1912	.2524	.3136	.3748	.4360	.4972	.5584	.6196	.6808	30	22.0313
3	.0115	.0727	.1339	.1951	.2563	.3175	.3787	.4399	.5011	.5623	.6235	.6847	40	29.3750
4	.0153	.0765	.1377	.1989	.2601	.3213	.3825	.4437	.5049	.5661	.6273	.6885	50	36.7188
5	.0191	.0803	.1415	.2027	.2639	.3251	.3863	.4475	.5087	.5699	.6311	.6923	60	44.0625
6	.0229	.0841	.1453	.2065	.2677	.3289	.3901	.4513	.5125	.5737	.6349	.6961	70	51.4063
7	.0268	.0880	.1492	.2104	.2716	.3328	.3940	.4552	.5164	.5776	.6388	.7000	80	58.7500
8	.0306	.0918	.1530	.2142	.2754	.3366	.3978	.4590	.5202	.5814	.6426	.7038	90	66.0938
9	.0344	.0956	.1568	.2180	.2792	.3404	.4016	.4628	.5240	.5852	.6464	.7076	100	73.4375
10	.0382	.0994	.1606	.2218	.2830	.3442	.4054	.4666	.5278	.5890	.6502	.7114		
11	.0421	.1033	.1645	.2257	.2869	.3481	.4093	.4705	.5317	.5929	.6541	.7153		
12	.0459	.1071	.1683	.2295	.2907	.3519	.4131	.4743	.5355	.5967	.6579	.7191		
13	.0497	.1109	.1721	.2333	.2945	.3557	.4169	.4781	.5393	.6005	.6617	.7229		
14	.0535	.1147	.1759	.2371	.2983	.3595	.4207	.4819	.5431	.6043	.6655	.7267		
15	.0574	.1186	.1798	.2410	.3022	.3634	.4246	.4858	.5470	.6082	.6694	.7306		

Hypotenuse

0	.0000	.1034	.2068	.3102	.4136	.5170	.6203	.7237	.8271	.9305	1.0339	1.1373	10	12.4069
1	.0065	.1099	.2132	.3166	.4200	.5234	.6268	.7302	.8336	.9370	1.0404	1.1438	20	24.8138
2	.0129	.1163	.2197	.3231	.4265	.5299	.6333	.7367	.8400	.9434	1.0468	1.1502	30	37.2206
3	.0194	.1228	.2262	.3296	.4329	.5363	.6397	.7431	.8465	.9499	1.0533	1.1567	40	49.6275
4	.0258	.1292	.2326	.3360	.4394	.5428	.6462	.7496	.8530	.9564	1.0598	1.1631	50	62.0344
5	.0323	.1357	.2391	.3425	.4459	.5493	.6527	.7560	.8594	.9628	1.0662	1.1696	60	74.4413
6	.0388	.1422	.2456	.3489	.4523	.5557	.6591	.7625	.8659	.9693	1.0727	1.1761	70	86.8482
7	.0452	.1486	.2520	.3554	.4588	.5622	.6656	.7690	.8724	.9757	1.0791	1.1825	80	99.2550
8	.0517	.1551	.2585	.3619	.4653	.5686	.6720	.7754	.8788	.9822	1.0856	1.1890	90	111.6619
9	.0582	.1615	.2649	.3683	.4717	.5751	.6785	.7819	.8853	.9887	1.0921	1.1955	100	124.0688
10	.0646	.1680	.2714	.3748	.4782	.5816	.6850	.7884	.8917	.9951	1.0985	1.2019		
11	.0711	.1745	.2779	.3813	.4846	.5880	.6914	.7948	.8982	1.0016	1.1050	1.2084		
12	.0775	.1809	.2843	.3877	.4911	.5945	.6979	.8013	.9047	1.0081	1.1114	1.2148		
13	.0840	.1874	.2908	.3942	.4976	.6010	.7043	.8077	.9111	1.0145	1.1179	1.2213		
14	.0905	.1939	.2972	.4006	.5040	.6074	.7108	.8142	.9176	1.0210	1.1244	1.2278		
15	.0969	.2003	.3037	.4071	.5105	.6139	.7173	.8207	.9241	1.0274	1.1308	1.2342		



Equivalent Angle $36^{\circ} 29' 10''$						Altitude						Batter $8\frac{1}{8}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0616	.1233	.1849	.2465	.3082	.3698	.4314	.4931	.5547	.6163	.6780	10	7.3958
1	.0039	.0655	.1271	.1887	.2504	.3120	.3736	.4353	.4969	.5585	.6202	.6818	20	14.7917
2	.0077	.0693	.1310	.1926	.2542	.3159	.3775	.4391	.5008	.5624	.6240	.6857	30	22.1875
3	.0116	.0732	.1348	.1965	.2581	.3197	.3813	.4430	.5046	.5662	.6279	.6895	40	29.5833
4	.0154	.0770	.1387	.2003	.2619	.3236	.3852	.4468	.5085	.5701	.6317	.6934	50	36.9792
5	.0193	.0809	.1425	.2042	.2658	.3274	.3891	.4507	.5123	.5739	.6356	.6972	60	44.3750
6	.0231	.0847	.1464	.2080	.2696	.3313	.3929	.4545	.5162	.5778	.6394	.7011	70	51.7708
7	.0270	.0886	.1502	.2119	.2735	.3351	.3968	.4584	.5200	.5817	.6433	.7049	80	59.1667
8	.0308	.0924	.1541	.2157	.2773	.3390	.4006	.4622	.5239	.5855	.6471	.7088	90	66.5625
9	.0347	.0963	.1579	.2196	.2812	.3428	.4045	.4661	.5277	.5894	.6510	.7126	100	73.9583
10	.0385	.1002	.1618	.2234	.2850	.3467	.4083	.4699	.5316	.5932	.6548	.7165		
11	.0424	.1040	.1656	.2273	.2889	.3505	.4122	.4738	.5354	.5971	.6587	.7203		
12	.0462	.1079	.1695	.2311	.2928	.3544	.4160	.4776	.5393	.6009	.6625	.7242		
13	.0501	.1117	.1733	.2350	.2966	.3582	.4199	.4815	.5431	.6048	.6664	.7280		
14	.0539	.1156	.1772	.2388	.3005	.3621	.4237	.4854	.5470	.6086	.6702	.7319		
15	.0578	.1194	.1810	.2427	.3043	.3659	.4276	.4892	.5508	.6125	.6741	.7357		

Hypothénuse

0	.0000	.1036	.2073	.3109	.4146	.5182	.6219	.7255	.8292	.9328	1.0365	1.1401	10	12.4378
1	.0065	.1101	.2138	.3174	.4211	.5247	.6284	.7320	.8357	.9393	1.0430	1.1466	20	24.8756
2	.0130	.1166	.2203	.3239	.4275	.5312	.6348	.7385	.8421	.9458	1.0494	1.1531	30	37.3133
3	.0194	.1231	.2267	.3304	.4340	.5377	.6413	.7450	.8486	.9523	1.0559	1.1596	40	49.7511
4	.0259	.1296	.2332	.3369	.4405	.5442	.6478	.7514	.8551	.9587	1.0624	1.1660	50	62.1889
5	.0324	.1360	.2397	.3433	.4470	.5506	.6543	.7579	.8616	.9652	1.0689	1.1725	60	74.6267
6	.0389	.1425	.2462	.3498	.4535	.5571	.6608	.7644	.8681	.9717	1.0753	1.1790	70	87.0645
7	.0453	.1490	.2526	.3563	.4599	.5636	.6672	.7709	.8745	.9782	1.0818	1.1855	80	99.5022
8	.0518	.1555	.2591	.3628	.4664	.5701	.6737	.7774	.8810	.9847	1.0883	1.1920	90	111.9400
9	.0583	.1620	.2656	.3692	.4729	.5765	.6802	.7838	.8875	.9911	1.0948	1.1984	100	124.3778
10	.0648	.1684	.2721	.3757	.4794	.5830	.6867	.7903	.8940	.9976	1.1013	1.2049		
11	.0713	.1749	.2786	.3822	.4859	.5895	.6931	.7968	.9004	1.0041	1.1077	1.2114		
12	.0777	.1814	.2850	.3887	.4923	.5960	.6996	.8033	.9069	1.0106	1.1142	1.2179		
13	.0842	.1879	.2915	.3952	.4988	.6025	.7061	.8098	.9134	1.0170	1.1207	1.2243		
14	.0907	.1943	.2980	.4016	.5053	.6089	.7126	.8162	.9199	1.0235	1.1272	1.2308		
15	.0972	.2008	.3045	.4081	.5118	.6154	.7191	.8227	.9264	1.0300	1.1337	1.2373		

Equivalent Angle 36° 40' 43"													Altitude		Batter 8 $\frac{1}{16}$ to 12	
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet			
0	.0000	.0621	.1241	.1862	.2483	.3103	.3724	.4345	.4965	.5586	.6207	.6827	10	7.4479		
1	.0039	.0659	.1280	.1901	.2521	.3142	.3763	.4383	.5004	.5625	.6245	.6866	20	14.8958		
2	.0078	.0698	.1319	.1940	.2560	.3181	.3802	.4422	.5043	.5664	.6284	.6905	30	22.3438		
3	.0116	.0737	.1358	.1978	.2599	.3220	.3840	.4461	.5082	.5702	.6323	.6944	40	29.7917		
4	.0155	.0776	.1396	.2017	.2638	.3258	.3879	.4500	.5120	.5741	.6362	.6982	50	37.2396		
5	.0194	.0815	.1435	.2056	.2677	.3297	.3918	.4539	.5159	.5780	.6401	.7021	60	44.6875		
6	.0233	.0853	.1474	.2095	.2715	.3336	.3957	.4577	.5198	.5819	.6439	.7060	70	52.1354		
7	.0272	.0892	.1513	.2134	.2754	.3375	.3995	.4616	.5237	.5857	.6478	.7099	80	59.5833		
8	.0310	.0931	.1552	.2172	.2793	.3414	.4034	.4655	.5276	.5896	.6517	.7138	90	67.0313		
9	.0349	.0970	.1590	.2211	.2832	.3452	.4073	.4694	.5314	.5935	.6556	.7176	100	74.4792		
10	.0388	.1009	.1629	.2250	.2871	.3491	.4112	.4733	.5353	.5974	.6595	.7215				
11	.0427	.1047	.1668	.2289	.2909	.3530	.4151	.4771	.5392	.6013	.6633	.7254				
12	.0465	.1086	.1707	.2327	.2948	.3569	.4189	.4810	.5431	.6051	.6672	.7293				
13	.0504	.1125	.1746	.2366	.2987	.3608	.4228	.4849	.5470	.6090	.6711	.7332				
14	.0543	.1164	.1784	.2405	.3026	.3646	.4267	.4888	.5508	.6129	.6750	.7370				
15	.0582	.1203	.1823	.2444	.3065	.3685	.4306	.4926	.5547	.6268	.6788	.7409				

Hypotenuse

0	.0000	.1039	.2078	.3117	.4156	.5195	.6234	.7273	.8313	.9352	1.0391	1.1430	10	12.4688
1	.0065	.1104	.2143	.3182	.4221	.5260	.6299	.7338	.8377	.9417	1.0456	1.1495	20	24.9376
2	.0130	.1169	.2208	.3247	.4286	.5325	.6364	.7403	.8442	.9482	1.0521	1.1560	30	37.4065
3	.0195	.1234	.2273	.3312	.4351	.5390	.6429	.7468	.8507	.9546	1.0586	1.1625	40	49.8753
4	.0260	.1299	.2338	.3377	.4416	.5455	.6494	.7533	.8572	.9611	1.0650	1.1690	50	62.3441
5	.0325	.1364	.2403	.3442	.4481	.5520	.6559	.7598	.8637	.9676	1.0715	1.1754	60	74.8129
6	.0390	.1429	.2468	.3507	.4546	.5585	.6624	.7663	.8702	.9741	1.0780	1.1819	70	87.2817
7	.0455	.1494	.2533	.3572	.4611	.5650	.6689	.7728	.8767	.9806	1.0845	1.1884	80	99.7506
8	.0520	.1559	.2598	.3637	.4676	.5715	.6754	.7793	.8832	.9871	1.0910	1.1949	90	112.2194
9	.0584	.1624	.2663	.3702	.4741	.5780	.6819	.7858	.8897	.9936	1.0975	1.2014	100	124.6882
10	.0649	.1688	.2728	.3767	.4806	.5845	.6884	.7923	.8962	1.0001	1.1040	1.2079		
11	.0714	.1753	.2792	.3832	.4871	.5910	.6949	.7988	.9027	1.0066	1.1105	1.2144		
12	.0779	.1818	.2857	.3897	.4936	.5975	.7014	.8053	.9092	1.0131	1.1170	1.2209		
13	.0844	.1883	.2922	.3961	.5001	.6040	.7079	.8118	.9157	1.0196	1.1235	1.2274		
14	.0909	.1948	.2987	.4026	.5065	.6105	.7144	.8183	.9222	1.0261	1.1300	1.2339		
15	.0974	.2013	.3052	.4091	.5130	.6169	.7209	.8248	.9287	1.0326	1.1365	1.2404		

Equivalent Angle $36^{\circ} 52' 12''$

Altitude

Batter 9 to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0625	.1250	.1875	.2500	.3125	.3750	.4375	.5000	.5625	.6250	.6875	10 7.5000
1	.0039	.0664	.1289	.1914	.2539	.3164	.3789	.4414	.5039	.5664	.6289	.6914	20 15.0000
2	.0078	.0703	.1328	.1953	.2578	.3203	.3828	.4453	.5078	.5703	.6328	.6953	30 22.5000
3	.0117	.0742	.1367	.1992	.2617	.3242	.3867	.4492	.5117	.5742	.6367	.6992	40 30.0000
4	.0156	.0781	.1406	.2031	.2656	.3281	.3906	.4531	.5156	.5781	.6406	.7031	50 37.5000
5	.0195	.0820	.1445	.2070	.2695	.3320	.3945	.4570	.5195	.5820	.6445	.7070	60 45.0000
6	.0234	.0859	.1484	.2109	.2734	.3359	.3984	.4609	.5234	.5859	.6484	.7109	70 52.5000
7	.0273	.0898	.1523	.2148	.2773	.3398	.4023	.4648	.5273	.5898	.6523	.7148	80 60.0000
8	.0313	.0938	.1563	.2188	.2813	.3438	.4063	.4688	.5313	.5938	.6563	.7188	90 67.5000
9	.0352	.0977	.1602	.2227	.2852	.3477	.4102	.4727	.5352	.5977	.6602	.7227	100 75.0000
10	.0391	.1016	.1641	.2266	.2891	.3516	.4141	.4766	.5391	.6016	.6641	.7266	
11	.0430	.1055	.1680	.2305	.2930	.3555	.4180	.4805	.5430	.6055	.6680	.7305	
12	.0469	.1094	.1719	.2344	.2969	.3594	.4219	.4844	.5469	.6094	.6719	.7344	
13	.0508	.1133	.1758	.2383	.3008	.3633	.4258	.4883	.5508	.6133	.6758	.7383	
14	.0547	.1172	.1797	.2422	.3047	.3672	.4297	.4922	.5547	.6172	.6797	.7422	
15	.0586	.1211	.1836	.2461	.3086	.3711	.4336	.4961	.5586	.6211	.6836	.7461	

Hypotenuse

0	.0000	.1042	.2083	.3125	.4167	.5208	.6250	.7292	.8333	.9375	1.0417	1.1458	10 12.5000
1	.0065	.1107	.2148	.3190	.4232	.5273	.6315	.7357	.8398	.9440	1.0482	1.1523	20 25.0000
2	.0130	.1172	.2214	.3255	.4297	.5339	.6380	.7422	.8464	.9505	1.0547	1.1589	30 37.5000
3	.0195	.1237	.2279	.3320	.4362	.5404	.6445	.7487	.8529	.9570	1.0612	1.1654	40 50.0000
4	.0260	.1302	.2344	.3385	.4427	.5469	.6510	.7552	.8594	.9635	1.0677	1.1719	50 62.5000
5	.0326	.1367	.2409	.3451	.4492	.5534	.6576	.7617	.8659	.9701	1.0742	1.1784	60 75.0000
6	.0391	.1432	.2474	.3516	.4557	.5599	.6641	.7682	.8724	.9766	1.0807	1.1849	70 87.5000
7	.0456	.1497	.2539	.3581	.4622	.5664	.6706	.7747	.8789	.9831	1.0872	1.1914	80 100.0000
8	.0521	.1563	.2604	.3646	.4688	.5729	.6771	.7813	.8854	.9896	1.0938	1.1979	90 112.5000
9	.0586	.1628	.2669	.3711	.4753	.5794	.6836	.7878	.8919	.9961	1.1003	1.2044	100 125.0000
10	.0651	.1693	.2734	.3776	.4818	.5859	.6901	.7943	.8984	1.0026	1.1068	1.2109	
11	.0716	.1758	.2799	.3841	.4883	.5924	.6966	.8008	.9049	1.0091	1.1133	1.2174	
12	.0781	.1823	.2865	.3906	.4948	.5990	.7031	.8073	.9115	1.0156	1.1198	1.2240	
13	.0846	.1888	.2950	.3971	.5013	.6055	.7096	.8138	.9180	1.0221	1.1263	1.2305	
14	.0911	.1953	.2995	.4036	.5078	.6120	.7161	.8203	.9245	1.0286	1.1328	1.2370	
15	.0977	.2018	.3060	.4102	.5143	.6185	.7227	.8268	.9310	1.0352	1.1393	1.2435	

Equivalent Angle $37^{\circ} 03' 38''$

Altitude

Batter $9\frac{1}{16}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0629	.1259	.1888	.2517	.3147	.3776	.4405	.5035	.5664	.6293	.6923	10	7.5521
1	.0039	.0669	.1298	.1927	.2557	.3186	.3815	.4445	.5074	.5703	.6333	.6962	20	15.1042
2	.0079	.0708	.1337	.1967	.2596	.3225	.3855	.4484	.5113	.5743	.6372	.7001	30	22.6563
3	.0118	.0747	.1377	.2006	.2635	.3265	.3894	.4523	.5153	.5782	.6411	.7041	40	30.2083
4	.0157	.0787	.1416	.2045	.2675	.3304	.3933	.4563	.5192	.5821	.6451	.7080	50	37.7604
5	.0197	.0826	.1455	.2085	.2714	.3343	.3973	.4602	.5231	.5861	.6490	.7119	60	45.3125
6	.0236	.0865	.1495	.2124	.2753	.3383	.4012	.4641	.5271	.5900	.6529	.7159	70	52.8646
7	.0275	.0905	.1534	.2163	.2793	.3422	.4051	.4681	.5310	.5939	.6569	.7198	80	60.4167
8	.0315	.0944	.1573	.2203	.2832	.3461	.4091	.4720	.5349	.5979	.6608	.7237	90	67.9688
9	.0354	.0983	.1613	.2242	.2871	.3501	.4130	.4759	.5389	.6018	.6647	.7277	100	75.5208
10	.0393	.1023	.1652	.2281	.2911	.3540	.4169	.4799	.5428	.6057	.6687	.7316		
11	.0433	.1062	.1691	.2321	.2950	.3579	.4209	.4838	.5467	.6097	.6726	.7355		
12	.0472	.1101	.1731	.2360	.2989	.3619	.4248	.4877	.5507	.6136	.6765	.7395		
13	.0511	.1141	.1770	.2399	.3029	.3658	.4287	.4917	.5546	.6175	.6805	.7434		
14	.0551	.1180	.1809	.2439	.3068	.3697	.4327	.4956	.5585	.6215	.6844	.7473		
15	.0590	.1219	.1849	.2478	.3107	.3737	.4366	.4995	.5625	.6254	.6883	.7513		

Hypotenuse

0	.0000	.1044	.2089	.3133	.4177	.5221	.6266	.7310	.8354	.9398	1.0443	1.1487	10	12.5313
1	.0065	.1110	.2154	.3198	.4242	.5287	.6331	.7375	.8419	.9464	1.0508	1.1552	20	25.0626
2	.0131	.1175	.2219	.3263	.4308	.5352	.6396	.7440	.8485	.9529	1.0573	1.1618	30	37.5940
3	.0196	.1240	.2284	.3329	.4373	.5417	.6461	.7506	.8550	.9594	1.0639	1.1683	40	50.1253
4	.0261	.1305	.2350	.3394	.4438	.5482	.6527	.7571	.8615	.9660	1.0704	1.1748	50	62.6566
5	.0326	.1371	.2415	.3459	.4503	.5548	.6592	.7636	.8681	.9725	1.0769	1.1813	60	75.1879
6	.0392	.1436	.2480	.3524	.4569	.5613	.6657	.7702	.8746	.9790	1.0834	1.1879	70	87.7192
7	.0457	.1501	.2545	.3590	.4634	.5678	.6723	.7767	.8811	.9855	1.0900	1.1944	80	100.2506
8	.0522	.1566	.2611	.3655	.4699	.5744	.6788	.7832	.8876	.9921	1.0965	1.2009	90	112.7819
9	.0587	.1632	.2676	.3720	.4765	.5809	.6853	.7897	.8942	.9986	1.1030	1.2074	100	125.3132
10	.0653	.1697	.2741	.3786	.4830	.5874	.6918	.7963	.9007	1.0051	1.1095	1.2140		
11	.0718	.1762	.2806	.3851	.4895	.5939	.6984	.8028	.9072	1.0116	1.1161	1.2205		
12	.0783	.1827	.2872	.3916	.4960	.6005	.7049	.8093	.9137	1.0182	1.1226	1.2270		
13	.0848	.1893	.2937	.3981	.5026	.6070	.7114	.8158	.9203	1.0247	1.1291	1.2336		
14	.0914	.1958	.3002	.4047	.5091	.6135	.7179	.8224	.9268	1.0312	1.1357	1.2401		
15	.0979	.2023	.3068	.4112	.5156	.6200	.7245	.8289	.9333	1.0377	1.1422	1.2466		

Equivalent Angle $37^{\circ} 15' 00''$

Altitude

Batter $9\frac{1}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0634	.1267	.1901	.2535	.3168	.3802	.4436	.5069	.5703	.6337	.6970	10 7.6042
1	.0040	.0673	.1307	.1941	.2574	.3208	.3842	.4475	.5109	.5743	.6376	.7010	20 15.2083
2	.0079	.0713	.1347	.1980	.2614	.3248	.3881	.4515	.5149	.5782	.6416	.7050	30 22.8125
3	.0119	.0752	.1386	.2020	.2654	.3287	.3921	.4555	.5188	.5822	.6456	.7089	40 30.4167
4	.0158	.0792	.1426	.2059	.2693	.3327	.3961	.4594	.5228	.5862	.6495	.7129	50 38.0208
5	.0198	.0832	.1465	.2099	.2733	.3366	.4000	.4634	.5267	.5901	.6535	.7169	60 45.6250
6	.0238	.0871	.1505	.2139	.2772	.3406	.4040	.4673	.5307	.5941	.6574	.7208	70 53.2292
7	.0277	.0911	.1545	.2178	.2812	.3446	.4079	.4713	.5347	.5980	.6614	.7248	80 60.8333
8	.0317	.0951	.1584	.2218	.2852	.3485	.4119	.4753	.5386	.6020	.6654	.7287	90 68.4375
9	.0356	.0990	.1624	.2257	.2891	.3525	.4159	.4792	.5426	.6060	.6693	.7327	100 76.0417
10	.0396	.1030	.1663	.2297	.2931	.3564	.4198	.4832	.5465	.6099	.6733	.7367	
11	.0436	.1069	.1703	.2337	.2970	.3604	.4238	.4871	.5505	.6139	.6772	.7406	
12	.0475	.1109	.1743	.2376	.3010	.3644	.4277	.4911	.5545	.6178	.6812	.7446	
13	.0515	.1149	.1782	.2416	.3050	.3683	.4317	.4951	.5584	.6218	.6852	.7485	
14	.0554	.1188	.1822	.2456	.3089	.3723	.4357	.4990	.5624	.6258	.6891	.7525	
15	.0594	.1228	.1861	.2495	.3129	.3762	.4396	.5030	.5664	.6297	.6931	.7565	

Hypothense

0	.0000	.1047	.2094	.3141	.4188	.5234	.6281	.7328	.8375	.9422	1.0469	1.1516	10 12.5628
1	.0065	.1112	.2159	.3206	.4253	.5300	.6347	.7394	.8441	.9488	1.0534	1.1581	20 25.1256
2	.0131	.1178	.2225	.3272	.4318	.5365	.6412	.7459	.8506	.9553	1.0600	1.1647	30 37.6883
3	.0196	.1243	.2290	.3337	.4384	.5431	.6478	.7525	.8572	.9618	1.0665	1.1712	40 50.2511
4	.0262	.1309	.2356	.3402	.4449	.5496	.6543	.7590	.8637	.9684	1.0731	1.1778	50 62.8139
5	.0327	.1374	.2421	.3468	.4515	.5562	.6609	.7655	.8702	.9749	1.0796	1.1843	60 75.3767
6	.0393	.1439	.2486	.3533	.4580	.5627	.6674	.7721	.8768	.9815	1.0862	1.1908	70 87.9394
7	.0458	.1505	.2552	.3599	.4646	.5693	.6739	.7786	.8833	.9880	1.0927	1.1974	80 100.5022
8	.0523	.1570	.2617	.3664	.4711	.5758	.6805	.7852	.8899	.9946	1.0992	1.2039	90 113.0650
9	.0589	.1636	.2683	.3730	.4776	.5823	.6870	.7917	.8964	1.0011	1.1058	1.2105	100 125.6278
10	.0654	.1701	.2748	.3795	.4842	.5889	.6936	.7983	.9030	1.0076	1.1123	1.2170	
11	.0720	.1767	.2814	.3860	.4907	.5954	.7001	.8048	.9095	1.0142	1.1189	1.2236	
12	.0785	.1832	.2879	.3926	.4973	.6020	.7067	.8113	.9160	1.0207	1.1254	1.2301	
13	.0851	.1898	.2944	.3991	.5038	.6085	.7132	.8179	.9226	1.0273	1.1320	1.2366	
14	.0916	.1963	.3010	.4057	.5104	.6151	.7197	.8244	.9291	1.0338	1.1385	1.2432	
15	.0981	.2028	.3075	.4122	.5169	.6216	.7263	.8310	.9357	1.0404	1.1450	1.2497	

Equivalent Angle 37° 26' 19"						Altitude					Batter 9 $\frac{3}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0638	.1276	.1914	.2552	.3190	.3828	.4466	.5104	.5742	.6380	.7018	10	7.6563
1	.0040	.0678	.1316	.1954	.2592	.3230	.3868	.4506	.5144	.5782	.6420	.7058	20	15.3125
2	.0080	.0718	.1356	.1994	.2632	.3270	.3908	.4546	.5184	.5822	.6460	.7098	30	22.9688
3	.0120	.0758	.1396	.2034	.2672	.3310	.3948	.4586	.5224	.5862	.6500	.7138	40	30.6250
4	.0160	.0798	.1436	.2074	.2712	.3350	.3988	.4626	.5264	.5902	.6540	.7178	50	38.2813
5	.0199	.0837	.1475	.2113	.2751	.3389	.4027	.4666	.5304	.5942	.6580	.7218	60	45.9375
6	.0239	.0877	.1515	.2153	.2791	.3429	.4067	.4705	.5343	.5981	.6619	.7257	70	53.5938
7	.0279	.0917	.1555	.2193	.2831	.3469	.4107	.4745	.5383	.6021	.6659	.7297	80	61.2500
8	.0319	.0957	.1595	.2233	.2871	.3509	.4147	.4785	.5423	.6061	.6699	.7337	90	68.9063
9	.0359	.0997	.1635	.2273	.2911	.3549	.4187	.4825	.5463	.6101	.6739	.7377	100	76.5625
10	.0399	.1037	.1675	.2313	.2951	.3589	.4227	.4865	.5503	.6141	.6779	.7417		
11	.0439	.1077	.1715	.2353	.2991	.3629	.4267	.4905	.5543	.6181	.6819	.7457		
12	.0479	.1117	.1755	.2393	.3031	.3669	.4307	.4945	.5583	.6221	.6859	.7497		
13	.0518	.1156	.1794	.2432	.3070	.3708	.4347	.4985	.5623	.6261	.6899	.7537		
14	.0558	.1196	.1834	.2472	.3110	.3748	.4386	.5024	.5662	.6300	.6938	.7576		
15	.0598	.1236	.1874	.2512	.3150	.3788	.4426	.5064	.5702	.6340	.6978	.7616		

Hypotenuse

0	.0000	.1050	.2099	.3149	.4198	.5248	.6297	.7347	.8396	.9446	1.0495	1.1545	10	12.5944
1	.0066	.1115	.2165	.3214	.4264	.5313	.6363	.7412	.8462	.9511	1.0561	1.1610	20	25.1887
2	.0131	.1181	.2230	.3280	.4329	.5379	.6428	.7478	.8527	.9577	1.0626	1.1676	30	37.7831
3	.0197	.1246	.2296	.3345	.4395	.5444	.6494	.7544	.8593	.9643	1.0692	1.1742	40	50.3775
4	.0262	.1312	.2361	.3411	.4461	.5510	.6560	.7609	.8659	.9708	1.0758	1.1807	50	62.9719
5	.0328	.1378	.2427	.3477	.4526	.5576	.6625	.7675	.8724	.9774	1.0823	1.1873	60	75.5662
6	.0394	.1443	.2493	.3542	.4592	.5641	.6691	.7740	.8790	.9839	1.0889	1.1938	70	88.1606
7	.0459	.1509	.2558	.3608	.4657	.5707	.6756	.7806	.8855	.9905	1.0954	1.2004	80	100.7550
8	.0525	.1574	.2624	.3673	.4723	.5772	.6822	.7871	.8921	.9971	1.1020	1.2070	90	113.3493
9	.0590	.1640	.2689	.3739	.4788	.5838	.6888	.7937	.8987	1.0036	1.1086	1.2135	100	125.9437
10	.0656	.1705	.2755	.3805	.4854	.5904	.6953	.8003	.9052	1.0102	1.1151	1.2201		
11	.0722	.1771	.2821	.3870	.4920	.5969	.7019	.8068	.9118	1.0167	1.1217	1.2266		
12	.0787	.1837	.2886	.3936	.4985	.6035	.7084	.8134	.9183	1.0233	1.1282	1.2332		
13	.0853	.1902	.2952	.4001	.5051	.6100	.7150	.8199	.9249	1.0299	1.1348	1.2398		
14	.0918	.1968	.3017	.4067	.5116	.6166	.7216	.8265	.9315	1.0364	1.1414	1.2463		
15	.0984	.2033	.3083	.4133	.5182	.6232	.7281	.8331	.9380	1.0430	1.1479	1.2529		

Equivalent Angle 37° 37' 34"												Batter 9½ to 12	
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0642	.1285	.1927	.2569	.3212	.3854	.4497	.5139	.5781	.6424	.7066	10 7.7083
1	.0040	.0683	.1325	.1967	.2610	.3252	.3894	.4537	.5179	.5821	.6464	.7106	20 15.4167
2	.0080	.0723	.1365	.2007	.2650	.3292	.3934	.4577	.5219	.5862	.6504	.7146	30 23.1250
3	.0120	.0763	.1405	.2048	.2690	.3332	.3975	.4617	.5259	.5902	.6544	.7186	40 30.8333
4	.0161	.0803	.1445	.2088	.2730	.3372	.4015	.4657	.5299	.5942	.6584	.7227	50 38.5417
5	.0201	.0843	.1485	.2128	.2770	.3413	.4055	.4697	.5340	.5982	.6624	.7267	60 46.2500
6	.0241	.0883	.1526	.2168	.2810	.3453	.4095	.4737	.5380	.6022	.6664	.7307	70 53.9583
7	.0281	.0923	.1566	.2208	.2850	.3493	.4135	.4778	.5420	.6062	.6705	.7347	80 61.6667
8	.0321	.0964	.1606	.2248	.2891	.3533	.4175	.4818	.5460	.6102	.6745	.7387	90 69.3750
9	.0361	.1004	.1646	.2288	.2931	.3573	.4215	.4858	.5500	.6143	.6785	.7427	100 77.0833
10	.0401	.1044	.1686	.2329	.2971	.3613	.4256	.4898	.5540	.6183	.6825	.7467	
11	.0442	.1084	.1726	.2369	.3011	.3653	.4296	.4938	.5581	.6223	.6865	.7508	
12	.0482	.1124	.1766	.2409	.3051	.3694	.4336	.4978	.5621	.6263	.6905	.7548	
13	.0522	.1164	.1807	.2449	.3091	.3734	.4376	.5018	.5661	.6303	.6946	.7588	
14	.0562	.1204	.1847	.2489	.3132	.3774	.4416	.5059	.5701	.6343	.6986	.7628	
15	.0602	.1245	.1887	.2529	.3172	.3814	.4456	.5099	.5741	.6383	.7026	.7668	

Hypotenuse

0	.0000	.1052	.2104	.3157	.4209	.5261	.6313	.7365	.8417	.9470	1.0522	1.1574	10 12.6261
1	.0066	.1118	.2170	.3222	.4274	.5327	.6379	.7431	.8483	.9535	1.0588	1.1640	20 25.2522
2	.0132	.1184	.2236	.3288	.4340	.5392	.6445	.7497	.8549	.9601	1.0653	1.1705	30 37.8783
3	.0197	.1249	.2302	.3354	.4406	.5458	.6510	.7563	.8615	.9667	1.0719	1.1771	40 50.5044
4	.0263	.1315	.2367	.3420	.4472	.5524	.6576	.7628	.8680	.9733	1.0785	1.1837	50 63.1305
5	.0329	.1381	.2433	.3485	.4538	.5590	.6642	.7694	.8746	.9798	1.0851	1.1903	60 75.7566
6	.0395	.1447	.2499	.3551	.4603	.5655	.6708	.7760	.8812	.9864	1.0916	1.1968	70 88.3827
7	.0460	.1513	.2565	.3617	.4669	.5721	.6773	.7826	.8878	.9930	1.0982	1.2034	80 101.0088
8	.0526	.1578	.2630	.3683	.4735	.5787	.6839	.7891	.8943	.9996	1.1048	1.2100	90 113.6349
9	.0592	.1644	.2696	.3748	.4801	.5853	.6905	.7957	.9009	1.0061	1.1114	1.2166	100 126.2610
10	.0658	.1710	.2762	.3814	.4866	.5918	.6971	.8023	.9075	1.0127	1.1179	1.2232	
11	.0723	.1776	.2828	.3880	.4932	.5984	.7036	.8089	.9141	1.0193	1.1245	1.2297	
12	.0789	.1841	.2893	.3946	.4998	.6050	.7102	.8154	.9207	1.0259	1.1311	1.2363	
13	.0855	.1907	.2959	.4011	.5064	.6116	.7168	.8220	.9272	1.0324	1.1377	1.2429	
14	.0921	.1973	.3025	.4077	.5129	.6182	.7234	.8286	.9338	1.0390	1.1442	1.2495	
15	.0986	.2039	.3091	.4143	.5195	.6247	.7299	.8352	.9404	1.0456	1.1508	1.2560	

Equivalent Angle 37° 48' 46"

Altitude

Batter 9⁵/₁₆ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0647	.1293	.1940	.2587	.3234	.3880	.4527	.5174	.5820	.6467	.7114	10	7.7604
1	.0040	.0687	.1334	.1981	.2627	.3274	.3921	.4567	.5214	.5861	.6507	.7154	20	15.5208
2	.0081	.0728	.1374	.2021	.2668	.3314	.3961	.4608	.5254	.5901	.6548	.7195	30	23.2813
3	.0121	.0768	.1415	.2061	.2708	.3355	.4001	.4648	.5295	.5942	.6588	.7235	40	31.0417
4	.0162	.0808	.1455	.2102	.2748	.3395	.4042	.4689	.5335	.5982	.6629	.7275	50	38.8021
5	.0202	.0849	.1495	.2142	.2789	.3436	.4082	.4729	.5376	.6022	.6669	.7316	60	46.5625
6	.0243	.0889	.1536	.2183	.2829	.3476	.4123	.4769	.5416	.6063	.6710	.7356	70	54.3229
7	.0283	.0930	.1576	.2223	.2870	.3516	.4163	.4810	.5457	.6103	.6750	.7397	80	62.0833
8	.0323	.0970	.1617	.2263	.2910	.3557	.4204	.4850	.5497	.6144	.6790	.7437	90	69.8438
9	.0364	.1010	.1657	.2304	.2951	.3597	.4244	.4891	.5537	.6184	.6831	.7477	100	77.6042
10	.0404	.1051	.1698	.2344	.2991	.3638	.4284	.4931	.5578	.6224	.6871	.7518		
11	.0445	.1091	.1738	.2385	.3031	.3678	.4325	.4972	.5618	.6265	.6912	.7558		
12	.0485	.1132	.1778	.2425	.3072	.3719	.4365	.5012	.5659	.6305	.6952	.7599		
13	.0525	.1172	.1819	.2466	.3112	.3759	.4406	.5052	.5699	.6346	.6992	.7639		
14	.0566	.1213	.1859	.2506	.3153	.3799	.4446	.5093	.5739	.6386	.7033	.7680		
15	.0606	.1253	.1900	.2546	.3193	.3840	.4486	.5133	.5780	.6427	.7073	.7720		

Hypotenuse

0	.0000	.1055	.2110	.3164	.4219	.5274	.6329	.7384	.8439	.9493	1.0548	1.1603	10	12.6580
1	.0066	.1121	.2176	.3230	.4285	.5340	.6395	.7450	.8505	.9559	1.0614	1.1669	20	25.3159
2	.0132	.1187	.2242	.3296	.4351	.5406	.6461	.7516	.8570	.9625	1.0680	1.1735	30	37.9739
3	.0198	.1253	.2307	.3362	.4417	.5472	.6527	.7582	.8636	.9691	1.0746	1.1801	40	50.6319
4	.0264	.1319	.2373	.3428	.4483	.5538	.6593	.7648	.8702	.9757	1.0812	1.1867	50	63.2898
5	.0330	.1384	.2439	.3494	.4549	.5604	.6659	.7713	.8768	.9823	1.0878	1.1933	60	75.9478
6	.0396	.1450	.2505	.3560	.4615	.5670	.6725	.7779	.8834	.9889	1.0944	1.1999	70	88.6058
7	.0461	.1516	.2571	.3626	.4681	.5736	.6790	.7845	.8900	.9955	1.1010	1.2065	80	101.2637
8	.0527	.1582	.2637	.3692	.4747	.5802	.6856	.7911	.8966	1.0021	1.1076	1.2131	90	113.9217
9	.0593	.1648	.2703	.3758	.4813	.5867	.6922	.7977	.9032	1.0087	1.1142	1.2196	100	126.5796
10	.0659	.1714	.2769	.3824	.4879	.5933	.6988	.8043	.9098	1.0153	1.1208	1.2262		
11	.0725	.1780	.2835	.3890	.4945	.5999	.7054	.8109	.9164	1.0219	1.1273	1.2328		
12	.0791	.1846	.2901	.3956	.5010	.6065	.7120	.8175	.9230	1.0285	1.1339	1.2394		
13	.0857	.1912	.2967	.4022	.5076	.6131	.7186	.8241	.9296	1.0351	1.1405	1.2460		
14	.0923	.1978	.3033	.4087	.5142	.6197	.7252	.8307	.9362	1.0416	1.1471	1.2526		
15	.0989	.2044	.3099	.4153	.5208	.6263	.7318	.8373	.9428	1.0482	1.1537	1.2592		

Equivalent Angle $37^{\circ} 59' 55''$

Altitude

Batter $9\frac{3}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0651	.1302	.1953	.2604	.3255	.3906	.4557	.5208	.5859	.6510	.7161	10 7.8125
1	.0041	.0692	.1343	.1994	.2645	.3296	.3947	.4598	.5249	.5900	.6551	.7202	20 15.6250
2	.0081	.0732	.1383	.2035	.2686	.3337	.3988	.4639	.5290	.5941	.6592	.7243	30 23.4375
3	.0122	.0773	.1424	.2075	.2726	.3377	.4028	.4679	.5330	.5981	.6632	.7284	40 31.2500
4	.0163	.0814	.1465	.2116	.2767	.3418	.4069	.4720	.5371	.6022	.6673	.7324	50 39.0625
5	.0203	.0854	.1506	.2157	.2808	.3459	.4110	.4761	.5412	.6063	.6714	.7365	60 46.8750
6	.0244	.0895	.1546	.2197	.2848	.3499	.4150	.4801	.5452	.6104	.6755	.7406	70 54.6875
7	.0285	.0936	.1587	.2238	.2889	.3540	.4191	.4842	.5493	.6144	.6795	.7446	80 62.5000
8	.0326	.0977	.1628	.2279	.2930	.3581	.4232	.4883	.5534	.6185	.6836	.7487	90 70.3125
9	.0366	.1017	.1668	.2319	.2970	.3621	.4272	.4924	.5575	.6226	.6877	.7528	100 78.1250
10	.0407	.1058	.1709	.2360	.3011	.3662	.4313	.4964	.5615	.6266	.6917	.7568	
11	.0448	.1099	.1750	.2401	.3052	.3703	.4354	.5005	.5656	.6307	.6958	.7609	
12	.0488	.1139	.1790	.2441	.3092	.3743	.4395	.5046	.5697	.6348	.6999	.7650	
13	.0529	.1180	.1831	.2482	.3133	.3784	.4435	.5086	.5737	.6388	.7039	.7690	
14	.0570	.1221	.1872	.2523	.3174	.3825	.4476	.5127	.5778	.6429	.7080	.7731	
15	.0610	.1261	.1912	.2563	.3215	.3866	.4517	.5168	.5819	.6470	.7121	.7772	

Hypotenuse

0	.0000	.1057	.2115	.3172	.4230	.5287	.6345	.7402	.8460	.9517	1.0575	1.1632	10 12.6900
1	.0066	.1124	.2181	.3239	.4296	.5354	.6411	.7469	.8526	.9584	1.0641	1.1699	20 25.3799
2	.0132	.1190	.2247	.3305	.4362	.5420	.6477	.7535	.8592	.9650	1.0707	1.1765	30 38.0699
3	.0198	.1256	.2313	.3371	.4428	.5486	.6543	.7601	.8658	.9716	1.0773	1.1831	40 50.7599
4	.0264	.1322	.2379	.3437	.4494	.5552	.6609	.7667	.8724	.9782	1.0839	1.1897	50 63.4498
5	.0330	.1388	.2445	.3503	.4560	.5618	.6675	.7733	.8790	.9848	1.0905	1.1963	60 76.1398
6	.0397	.1454	.2512	.3569	.4627	.5684	.6742	.7799	.8857	.9914	1.0972	1.2029	70 88.8297
7	.0463	.1520	.2578	.3635	.4693	.5750	.6808	.7865	.8923	.9980	1.1038	1.2095	80 101.5197
8	.0529	.1586	.2644	.3701	.4759	.5816	.6874	.7931	.8989	1.0046	1.1104	1.2161	90 114.2097
9	.0595	.1652	.2710	.3767	.4825	.5882	.6940	.7997	.9055	1.0112	1.1170	1.2227	100 126.8996
10	.0661	.1718	.2776	.3833	.4891	.5948	.7006	.8063	.9121	1.0178	1.1236	1.2293	
11	.0727	.1785	.2842	.3900	.4957	.6015	.7072	.8130	.9187	1.0245	1.1302	1.2359	
12	.0793	.1851	.2908	.3966	.5023	.6081	.7138	.8196	.9253	1.0311	1.1368	1.2426	
13	.0859	.1917	.2974	.4032	.5089	.6147	.7204	.8262	.9319	1.0377	1.1434	1.2492	
14	.0925	.1983	.3040	.4098	.5155	.6213	.7270	.8328	.9385	1.0443	1.1500	1.2558	
15	.0991	.2049	.3106	.4164	.5221	.6279	.7336	.8394	.9451	1.0509	1.1566	1.2624	

Equivalent Angle 38° 11' 01"														Altitude		Batter 9 ⁷ / ₁₆ to 12	
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet				
0	.0000	.0655	.1311	.1966	.2622	.3277	.3932	.4588	.5243	.5898	.6554	.7209	10	7.8646			
1	.0041	.0696	.1352	.2007	.2662	.3318	.3973	.4629	.5284	.5939	.6595	.7250	20	15.7292			
2	.0082	.0737	.1393	.2048	.2703	.3359	.4014	.4670	.5325	.5980	.6636	.7291	30	23.5938			
3	.0123	.0778	.1434	.2089	.2744	.3400	.4055	.4711	.5366	.6021	.6677	.7332	40	31.4583			
4	.0164	.0819	.1475	.2130	.2785	.3441	.4096	.4752	.5407	.6062	.6718	.7373	50	39.3229			
5	.0205	.0860	.1516	.2171	.2826	.3482	.4137	.4792	.5448	.6103	.6759	.7414	60	47.1875			
6	.0246	.0901	.1557	.2212	.2867	.3523	.4178	.4833	.5489	.6144	.6800	.7455	70	55.0521			
7	.0287	.0942	.1597	.2253	.2908	.3564	.4219	.4874	.5530	.6185	.6841	.7496	80	62.9167			
8	.0328	.0983	.1638	.2294	.2949	.3605	.4260	.4915	.5571	.6226	.6882	.7537	90	70.7813			
9	.0369	.1024	.1679	.2335	.2990	.3646	.4301	.4956	.5612	.6267	.6922	.7578	100	78.6458			
10	.0410	.1065	.1720	.2376	.3031	.3687	.4342	.4997	.5653	.6308	.6963	.7619					
11	.0451	.1106	.1761	.2417	.3072	.3727	.4383	.5038	.5694	.6349	.7004	.7660					
12	.0492	.1147	.1802	.2458	.3113	.3768	.4424	.5079	.5735	.6390	.7045	.7701					
13	.0532	.1188	.1843	.2499	.3154	.3809	.4465	.5120	.5776	.6431	.7086	.7742					
14	.0573	.1229	.1884	.2540	.3195	.3850	.4506	.5161	.5817	.6472	.7127	.7783					
15	.0614	.1270	.1925	.2581	.3236	.3891	.4547	.5202	.5857	.6513	.7168	.7824					

Hypothenus

0	.0000	.1060	.2120	.3181	.4241	.5301	.6361	.7421	.8481	.9542	1.0602	1.1662	10	12.7221			
1	.0066	.1126	.2187	.3247	.4307	.5367	.6427	.7487	.8548	.9608	1.0668	1.1728	20	25.4442			
2	.0133	.1193	.2253	.3313	.4373	.5433	.6494	.7554	.8614	.9674	1.0734	1.1794	30	38.1663			
3	.0199	.1259	.2319	.3379	.4439	.5500	.6560	.7620	.8680	.9740	1.0801	1.1861	40	50.8884			
4	.0265	.1325	.2385	.3446	.4506	.5566	.6626	.7686	.8746	.9807	1.0867	1.1927	50	63.6105			
5	.0331	.1391	.2452	.3512	.4572	.5632	.6692	.7753	.8813	.9873	1.0933	1.1993	60	76.3326			
6	.0398	.1458	.2518	.3578	.4638	.5698	.6759	.7819	.8879	.9939	1.0999	1.2059	70	89.0547			
7	.0464	.1524	.2584	.3644	.4705	.5765	.6825	.7885	.8945	1.0005	1.1066	1.2126	80	101.7768			
8	.0530	.1590	.2650	.3711	.4771	.5831	.6891	.7951	.9011	1.0072	1.1132	1.2192	90	114.4988			
9	.0596	.1657	.2717	.3777	.4837	.5897	.6957	.8018	.9078	1.0138	1.1198	1.2258	100	127.2209			
10	.0663	.1723	.2783	.3843	.4903	.5963	.7024	.8084	.9144	1.0204	1.1264	1.2325					
11	.0729	.1789	.2849	.3909	.4970	.6030	.7090	.8150	.9210	1.0270	1.1331	1.2391					
12	.0795	.1855	.2915	.3976	.5036	.6096	.7156	.8216	.9277	1.0337	1.1397	1.2457					
13	.0861	.1922	.2982	.4042	.5102	.6162	.7222	.8283	.9343	1.0403	1.1463	1.2523					
14	.0928	.1988	.3048	.4108	.5168	.6229	.7289	.8349	.9409	1.0469	1.1529	1.2590					
15	.0994	.2054	.3114	.4174	.5235	.6295	.7355	.8415	.9475	1.0535	1.1596	1.2656					

Equivalent Angle 38° 22' 03"						Altitude					Batter 9½ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0660	.1319	.1979	.2639	.3299	.3958	.4618	.5278	.5938	.6597	.7257	10	7.9167
1	.0041	.0701	.1361	.2020	.2680	.3340	.4000	.4659	.5319	.5979	.6638	.7298	20	15.8333
2	.0082	.0742	.1402	.2062	.2721	.3381	.4041	.4701	.5360	.6020	.6680	.7339	30	23.7500
3	.0124	.0783	.1443	.2103	.2763	.3422	.4082	.4742	.5401	.6061	.6721	.7381	40	31.6667
4	.0165	.0825	.1484	.2144	.2804	.3464	.4123	.4783	.5443	.6102	.6762	.7422	50	39.5833
5	.0206	.0866	.1526	.2185	.2845	.3505	.4164	.4824	.5484	.6144	.6803	.7463	60	47.5000
6	.0247	.0907	.1567	.2227	.2886	.3546	.4206	.4865	.5525	.6185	.6845	.7504	70	55.4167
7	.0289	.0948	.1608	.2268	.2928	.3587	.4247	.4907	.5566	.6226	.6886	.7546	80	63.3333
8	.0330	.0990	.1649	.2309	.2969	.3628	.4288	.4948	.5608	.6267	.6927	.7587	90	71.2500
9	.0371	.1031	.1691	.2350	.3010	.3670	.4329	.4989	.5649	.6309	.6968	.7628	100	79.1667
10	.0412	.1072	.1732	.2391	.3051	.3711	.4371	.5030	.5690	.6350	.7010	.7669		
11	.0454	.1113	.1773	.2433	.3092	.3752	.4412	.5072	.5731	.6391	.7051	.7711		
12	.0495	.1155	.1814	.2474	.3134	.3793	.4453	.5113	.5773	.6432	.7092	.7752		
13	.0536	.1196	.1855	.2515	.3175	.3835	.4494	.5154	.5814	.6474	.7133	.7793		
14	.0577	.1237	.1897	.2556	.3216	.3876	.4536	.5195	.5855	.6515	.7174	.7834		
15	.0618	.1278	.1938	.2598	.3257	.3917	.4577	.5237	.5896	.6556	.7216	.7875		

Hypotenuse

0	.0000	.1063	.2126	.3189	.4251	.5314	.6377	.7440	.8503	.9566	1.0629	1.1691	10	12.7544
1	.0066	.1129	.2192	.3255	.4318	.5381	.6444	.7506	.8569	.9632	1.0695	1.1758	20	25.5087
2	.0133	.1196	.2259	.3321	.4384	.5447	.6510	.7573	.8636	.9699	1.0761	1.1824	30	38.2631
3	.0199	.1262	.2325	.3388	.4451	.5514	.6576	.7639	.8702	.9765	1.0828	1.1891	40	51.0174
4	.0266	.1329	.2391	.3454	.4517	.5580	.6643	.7706	.8769	.9831	1.0894	1.1957	50	63.7718
5	.0332	.1395	.2458	.3521	.4584	.5646	.6709	.7772	.8835	.9898	1.0961	1.2024	60	76.5261
6	.0399	.1461	.2524	.3587	.4650	.5713	.6776	.7839	.8901	.9964	1.1027	1.2090	70	89.2805
7	.0465	.1528	.2591	.3654	.4716	.5779	.6842	.7905	.8968	1.0031	1.1094	1.2156	80	102.0349
8	.0531	.1594	.2657	.3720	.4783	.5846	.6909	.7971	.9034	1.0097	1.1160	1.2223	90	114.7892
9	.0598	.1661	.2724	.3786	.4849	.5912	.6975	.8038	.9101	1.0164	1.1226	1.2289	100	127.5436
10	.0664	.1727	.2790	.3853	.4916	.5979	.7041	.8104	.9167	1.0230	1.1293	1.2356		
11	.0731	.1794	.2856	.3919	.4982	.6045	.7108	.8171	.9234	1.0296	1.1359	1.2422		
12	.0797	.1860	.2923	.3986	.5049	.6111	.7174	.8237	.9300	1.0363	1.1426	1.2489		
13	.0864	.1926	.2989	.4052	.5115	.6178	.7241	.8304	.9366	1.0429	1.1492	1.2555		
14	.0930	.1993	.3056	.4119	.5181	.6244	.7307	.8370	.9433	1.0496	1.1559	1.2621		
15	.0996	.2059	.3122	.4185	.5248	.6311	.7374	.8436	.9499	1.0562	1.1625	1.2688		

Equivalent Angle 38° 33' 02"						Altitude			Batter 9 ⁹ / ₁₆ to 12					
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0664	.1328	.1992	.2656	.3320	.3984	.4648	.5313	.5977	.6641	.7305	10	7.9688
1	.0042	.0706	.1370	.2034	.2698	.3362	.4026	.4690	.5354	.6018	.6682	.7346	20	15.9375
2	.0083	.0747	.1411	.2075	.2739	.3403	.4067	.4731	.5396	.6060	.6724	.7388	30	23.9063
3	.0125	.0789	.1453	.2117	.2781	.3445	.4109	.4773	.5437	.6101	.6765	.7429	40	31.8750
4	.0166	.0830	.1494	.2158	.2822	.3486	.4150	.4814	.5479	.6143	.6807	.7471	50	39.8438
5	.0208	.0872	.1536	.2100	.2864	.3528	.4192	.4856	.5520	.6184	.6848	.7512	60	47.8125
6	.0249	.0913	.1577	.2241	.2905	.3569	.4233	.4897	.5562	.6226	.6890	.7554	70	55.7813
7	.0291	.0955	.1619	.2283	.2947	.3611	.4275	.4939	.5603	.6267	.6931	.7595	80	63.7500
8	.0332	.0996	.1660	.2324	.2988	.3652	.4316	.4980	.5645	.6309	.6973	.7637	90	71.7188
9	.0374	.1038	.1702	.2366	.3030	.3694	.4358	.5022	.5686	.6350	.7014	.7678	100	79.6875
10	.0415	.1079	.1743	.2407	.3071	.3735	.4399	.5063	.5728	.6392	.7056	.7720		
11	.0457	.1121	.1785	.2449	.3113	.3777	.4441	.5105	.5769	.6433	.7097	.7761		
12	.0498	.1162	.1826	.2490	.3154	.3818	.4482	.5146	.5811	.6475	.7139	.7803		
13	.0540	.1204	.1868	.2532	.3196	.3860	.4524	.5188	.5852	.6516	.7180	.7844		
14	.0581	.1245	.1909	.2573	.3237	.3901	.4565	.5229	.5894	.6558	.7222	.7886		
15	.0623	.1287	.1951	.2615	.3279	.3943	.4607	.5271	.5935	.6599	.7263	.7927		

Hypothénuse

0	.0000	.1066	.2131	.3197	.4262	.5328	.6393	.7459	.8525	.9590	1.0656	1.1721	10	12.7868
1	.0067	.1132	.2198	.3263	.4329	.5394	.6460	.7526	.8591	.9657	1.0722	1.1788	20	25.5735
2	.0133	.1199	.2264	.3330	.4395	.5461	.6527	.7592	.8658	.9723	1.0789	1.1854	30	38.3603
3	.0200	.1265	.2331	.3396	.4462	.5528	.6593	.7659	.8724	.9790	1.0855	1.1921	40	51.1470
4	.0266	.1332	.2398	.3463	.4529	.5594	.6660	.7725	.8791	.9856	1.0922	1.1988	50	63.9338
5	.0333	.1399	.2464	.3530	.4595	.5661	.6726	.7792	.8857	.9923	1.0989	1.2054	60	76.7205
6	.0400	.1465	.2531	.3596	.4662	.5727	.6793	.7859	.8924	.9990	1.1055	1.2121	70	89.5073
7	.0466	.1532	.2597	.3663	.4728	.5794	.6860	.7925	.8991	1.0056	1.1122	1.2187	80	102.2940
8	.0533	.1598	.2664	.3729	.4795	.5861	.6926	.7992	.9057	1.0123	1.1188	1.2254	90	115.0808
9	.0599	.1665	.2731	.3796	.4862	.5927	.6993	.8058	.9124	1.0189	1.1255	1.2321	100	127.8675
10	.0666	.1732	.2797	.3863	.4928	.5994	.7059	.8125	.9190	1.0256	1.1322	1.2387		
11	.0733	.1798	.2864	.3929	.4995	.6060	.7126	.8192	.9257	1.0323	1.1388	1.2454		
12	.0799	.1865	.2930	.3996	.5061	.6127	.7193	.8258	.9324	1.0389	1.1455	1.2520		
13	.0866	.1931	.2997	.4062	.5128	.6194	.7259	.8325	.9390	1.0456	1.1521	1.2587		
14	.0932	.1998	.3063	.4129	.5195	.6260	.7326	.8391	.9457	1.0522	1.1588	1.2654		
15	.0999	.2065	.3130	.4196	.5261	.6327	.7392	.8458	.9523	1.0589	1.1655	1.2720		

Equivalent Angle 38° 43' 57"

Altitude

Batter 9⁵/₈ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0668	.1337	.2005	.2674	.3342	.4010	.4679	.5347	.6016	.6684	.7352	10	8.0208
1	.0042	.0710	.1379	.2047	.2715	.3384	.4052	.4721	.5389	.6057	.6726	.7394	20	16.0417
2	.0084	.0752	.1420	.2089	.2757	.3426	.4094	.4762	.5431	.6099	.6768	.7436	30	24.0625
3	.0125	.0794	.1462	.2131	.2799	.3467	.4136	.4804	.5473	.6141	.6809	.7478	40	32.0833
4	.0167	.0836	.1504	.2172	.2841	.3509	.4178	.4846	.5514	.6183	.6851	.7520	50	40.1042
5	.0209	.0877	.1546	.2214	.2882	.3551	.4219	.4888	.5556	.6225	.6893	.7561	60	48.1250
6	.0251	.0919	.1587	.2256	.2924	.3593	.4261	.4929	.5698	.6266	.6935	.7603	70	56.1458
7	.0292	.0961	.1629	.2298	.2966	.3634	.4303	.4971	.5640	.6308	.6976	.7645	80	64.1667
8	.0334	.1003	.1671	.2339	.3008	.3676	.4345	.5013	.5681	.6350	.7018	.7687	90	72.1875
9	.0376	.1044	.1713	.2381	.3050	.3718	.4386	.5055	.5723	.6392	.7060	.7728	100	80.2083
10	.0418	.1086	.1755	.2423	.3091	.3760	.4428	.5097	.5765	.6433	.7102	.7770		
11	.0460	.1128	.1796	.2465	.3133	.3802	.4470	.5138	.5807	.6475	.7144	.7812		
12	.0501	.1170	.1838	.2507	.3175	.3843	.4512	.5180	.5849	.6517	.7185	.7854		
13	.0543	.1211	.1880	.2548	.3217	.3885	.4553	.5222	.5890	.6559	.7227	.7896		
14	.0585	.1253	.1922	.2590	.3258	.3927	.4595	.5264	.5932	.6600	.7269	.7937		
15	.0627	.1295	.1963	.2632	.3300	.3969	.4637	.5305	.5974	.6642	.7311	.7979		

Hypothense

0	.0000	.1068	.2137	.3205	.4273	.5341	.6410	.7478	.8546	.9614	1.0683	1.1751	10	12.8193
1	.0067	.1135	.2203	.3272	.4340	.5408	.6476	.7545	.8613	.9681	1.0749	1.1818	20	25.6385
2	.0134	.1202	.2270	.3338	.4407	.5475	.6543	.7611	.8680	.9748	1.0816	1.1885	30	38.4578
3	.0200	.1269	.2337	.3405	.4473	.5542	.6610	.7678	.8746	.9815	1.0883	1.1951	40	51.2771
4	.0267	.1335	.2404	.3472	.4540	.5608	.6677	.7745	.8813	.9882	1.0950	1.2018	50	64.0964
5	.0334	.1402	.2470	.3539	.4607	.5675	.6743	.7812	.8880	.9948	1.1017	1.2085	60	76.9156
6	.0401	.1469	.2537	.3605	.4674	.5742	.6810	.7879	.8947	1.0015	1.1083	1.2152	70	89.7349
7	.0467	.1536	.2604	.3672	.4741	.5809	.6877	.7945	.9014	1.0082	1.1150	1.2218	80	102.5542
8	.0534	.1602	.2671	.3739	.4807	.5876	.6944	.8012	.9080	1.0149	1.1217	1.2285	90	115.3735
9	.0601	.1669	.2737	.3806	.4874	.5942	.7011	.8079	.9147	1.0215	1.1284	1.2352	100	128.1927
10	.0668	.1736	.2804	.3872	.4941	.6009	.7077	.8146	.9214	1.0282	1.1350	1.2419		
11	.0734	.1803	.2871	.3939	.5008	.6076	.7144	.8212	.9281	1.0349	1.1417	1.2485		
12	.0801	.1869	.2938	.4006	.5074	.6143	.7211	.8279	.9347	1.0416	1.1484	1.2552		
13	.0868	.1936	.3004	.4073	.5141	.6209	.7278	.8346	.9414	1.0482	1.1551	1.2619		
14	.0935	.2003	.3071	.4140	.5208	.6276	.7344	.8413	.9481	1.0549	1.1617	1.2686		
15	.1002	.2070	.3138	.4206	.5275	.6343	.7411	.8479	.9548	1.0616	1.1684	1.2753		

Equivalent Angle 38° 54' 49"						Altitude					Batter 9 ¹¹ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0673	.1345	.2018	.2691	.3364	.4036	.4709	.5382	.6055	.6727	.7400	10	8.0729
1	.0042	.0715	.1388	.2060	.2733	.3406	.4079	.4751	.5424	.6097	.6769	.7442	20	16.1458
2	.0084	.0757	.1430	.2102	.2775	.3448	.4121	.4793	.5466	.6139	.6812	.7484	30	24.2188
3	.0126	.0799	.1472	.2144	.2817	.3490	.4163	.4835	.5508	.6181	.6854	.7526	40	32.2917
4	.0168	.0841	.1514	.2186	.2859	.3532	.4205	.4877	.5550	.6223	.6896	.7568	50	40.3646
5	.0210	.0883	.1556	.2228	.2901	.3574	.4247	.4919	.5592	.6265	.6938	.7610	60	48.4375
6	.0252	.0925	.1598	.2271	.2943	.3616	.4289	.4961	.5634	.6307	.6980	.7652	70	56.5104
7	.0294	.0967	.1640	.2313	.2985	.3658	.4331	.5004	.5676	.6349	.7022	.7694	80	64.5833
8	.0336	.1009	.1682	.2355	.3027	.3700	.4373	.5046	.5718	.6391	.7064	.7737	90	72.6563
9	.0378	.1051	.1724	.2397	.3069	.3742	.4415	.5088	.5760	.6433	.7106	.7779	100	80.7292
10	.0420	.1093	.1766	.2439	.3111	.3784	.4457	.5130	.5802	.6475	.7148	.7821		
11	.0463	.1135	.1808	.2481	.3153	.3826	.4499	.5172	.5844	.6517	.7190	.7863		
12	.0505	.1177	.1850	.2523	.3196	.3868	.4541	.5214	.5887	.6559	.7232	.7905		
13	.0547	.1219	.1892	.2565	.3238	.3910	.4583	.5256	.5929	.6601	.7274	.7947		
14	.0589	.1261	.1934	.2607	.3280	.3952	.4625	.5298	.5971	.6643	.7316	.7989		
15	.0631	.1303	.1976	.2649	.3322	.3994	.4667	.5340	.6013	.6685	.7358	.8031		

Hypotenuse														
0	.0000	.1071	.2142	.3213	.4284	.5355	.6426	.7497	.8568	.9639	1.0710	1.1781	10	12.8519
1	.0067	.1138	.2209	.3280	.4351	.5422	.6493	.7564	.8635	.9706	1.0777	1.1848	20	25.7039
2	.0134	.1205	.2276	.3347	.4418	.5489	.6560	.7631	.8702	.9773	1.0844	1.1915	30	38.5558
3	.0201	.1272	.2343	.3414	.4485	.5556	.6627	.7698	.8769	.9840	1.0911	1.1982	40	51.4077
4	.0268	.1339	.2410	.3481	.4552	.5623	.6694	.7765	.8836	.9907	1.0978	1.2049	50	64.2596
5	.0335	.1406	.2477	.3548	.4619	.5690	.6761	.7832	.8903	.9974	1.1045	1.2116	60	77.1116
6	.0402	.1473	.2544	.3615	.4686	.5757	.6828	.7899	.8970	1.0041	1.1112	1.2183	70	89.9635
7	.0469	.1540	.2611	.3682	.4753	.5824	.6895	.7966	.9037	1.0108	1.1178	1.2249	80	102.8154
8	.0535	.1606	.2677	.3748	.4819	.5890	.6961	.8032	.9103	1.0174	1.1245	1.2316	90	115.6673
9	.0602	.1673	.2744	.3815	.4886	.5957	.7028	.8099	.9170	1.0241	1.1312	1.2383	100	128.5193
10	.0669	.1740	.2811	.3882	.4953	.6024	.7095	.8166	.9237	1.0308	1.1379	1.2450		
11	.0736	.1807	.2878	.3949	.5020	.6091	.7162	.8233	.9304	1.0375	1.1446	1.2517		
12	.0803	.1874	.2945	.4016	.5087	.6158	.7229	.8300	.9371	1.0442	1.1513	1.2584		
13	.0870	.1941	.3012	.4083	.5154	.6225	.7296	.8367	.9438	1.0509	1.1580	1.2651		
14	.0937	.2008	.3079	.4150	.5221	.6292	.7363	.8434	.9505	1.0576	1.1647	1.2718		
15	.1004	.2075	.3146	.4217	.5288	.6359	.7430	.8501	.9572	1.0643	1.1714	1.2785		

Equivalent Angle 39° 05' 38"

Altitude

Batter 9 $\frac{3}{4}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0677	.1354	.2031	.2708	.3385	.4063	.4740	.5417	.6094	.6771	.7448	10 8.1250
1	.0042	.0719	.1396	.2074	.2751	.3428	.4105	.4782	.5459	.6136	.6813	.7490	20 16.2500
2	.0085	.0762	.1439	.2116	.2793	.3470	.4147	.4824	.5501	.6178	.6855	.7533	30 24.3750
3	.0127	.0804	.1481	.2158	.2835	.3512	.4189	.4867	.5544	.6221	.6898	.7575	40 32.5000
4	.0169	.0846	.1523	.2201	.2878	.3555	.4232	.4909	.5586	.6263	.6940	.7617	50 40.6250
5	.0212	.0889	.1566	.2243	.2920	.3597	.4274	.4951	.5628	.6305	.6982	.7660	60 48.7500
6	.0254	.0931	.1608	.2285	.2962	.3639	.4316	.4993	.5671	.6348	.7025	.7702	70 56.8750
7	.0296	.0973	.1650	.2327	.3005	.3682	.4359	.5036	.5713	.6390	.7067	.7744	80 65.0000
8	.0339	.1016	.1693	.2370	.3047	.3724	.4401	.5078	.5755	.6432	.7109	.7786	90 73.1250
9	.0381	.1058	.1735	.2412	.3089	.3766	.4443	.5120	.5798	.6475	.7152	.7829	100 81.2500
10	.0423	.1100	.1777	.2454	.3132	.3809	.4486	.5163	.5840	.6517	.7194	.7871	
11	.0465	.1143	.1820	.2497	.3174	.3851	.4528	.5205	.5882	.6559	.7236	.7913	
12	.0508	.1185	.1862	.2539	.3216	.3893	.4570	.5247	.5924	.6602	.7279	.7956	
13	.0550	.1227	.1904	.2581	.3258	.3936	.4613	.5290	.5967	.6644	.7321	.7998	
14	.0592	.1270	.1947	.2624	.3301	.3978	.4655	.5332	.6009	.6686	.7363	.8040	
15	.0635	.1312	.1989	.2666	.3343	.4020	.4697	.5374	.6051	.6729	.7406	.8083	

Hypothénuse

0	.0000	.1074	.2147	.3221	.4295	.5369	.6442	.7516	.8590	.9664	1.0737	1.1811	10 12.8847
1	.0067	.1141	.2215	.3288	.4362	.5436	.6509	.7583	.8657	.9731	1.0804	1.1878	20 25.7694
2	.0134	.1208	.2282	.3355	.4429	.5503	.6577	.7650	.8724	.9798	1.0871	1.1945	30 38.6541
3	.0201	.1275	.2349	.3422	.4496	.5570	.6644	.7717	.8791	.9865	1.0939	1.2012	40 51.5388
4	.0268	.1342	.2416	.3490	.4563	.5637	.6711	.7785	.8858	.9932	1.1006	1.2079	50 64.4235
5	.0336	.1409	.2483	.3557	.4630	.5704	.6778	.7852	.8925	.9999	1.1073	1.2147	60 77.3082
6	.0403	.1476	.2550	.3624	.4698	.5771	.6845	.7919	.8992	1.0066	1.1140	1.2214	70 90.1929
7	.0470	.1543	.2617	.3691	.4765	.5838	.6912	.7986	.9060	1.0133	1.1207	1.2281	80 103.0776
8	.0537	.1611	.2684	.3758	.4832	.5905	.6979	.8053	.9127	1.0200	1.1274	1.2348	90 115.9623
9	.0604	.1678	.2751	.3825	.4899	.5973	.7046	.8120	.9194	1.0267	1.1341	1.2415	100 128.8471
10	.0671	.1745	.2819	.3892	.4966	.6040	.7113	.8187	.9261	1.0335	1.1408	1.2482	
11	.0738	.1812	.2886	.3959	.5033	.6107	.7181	.8254	.9328	1.0402	1.1475	1.2549	
12	.0805	.1879	.2953	.4026	.5100	.6174	.7248	.8321	.9395	1.0469	1.1543	1.2616	
13	.0872	.1946	.3020	.4094	.5167	.6241	.7315	.8388	.9462	1.0536	1.1610	1.2683	
14	.0940	.2013	.3087	.4161	.5234	.6308	.7382	.8456	.9529	1.0603	1.1677	1.2750	
15	.1007	.2080	.3154	.4228	.5302	.6375	.7449	.8523	.9596	1.0670	1.1744	1.2818	

Equivalent Angle 39° 16' 24"

Altitude

Batter 9 $\frac{13}{16}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0681	.1363	.2044	.2726	.3407	.4089	.4770	.5451	.6133	.6814	.7496	10	8.1771
1	.0043	.0724	.1405	.2087	.2768	.3450	.4131	.4813	.5494	.6175	.6857	.7538	20	16.3542
2	.0085	.0767	.1448	.2129	.2811	.3492	.4174	.4855	.5537	.6218	.6899	.7581	30	24.5313
3	.0128	.0809	.1491	.2172	.2853	.3535	.4216	.4898	.5579	.6261	.6942	.7623	40	32.7083
4	.0170	.0852	.1533	.2215	.2896	.3577	.4259	.4940	.5622	.6303	.6985	.7666	50	40.8854
5	.0213	.0894	.1576	.2257	.2939	.3620	.4301	.4983	.5664	.6346	.7027	.7709	60	49.0625
6	.0256	.0937	.1618	.2300	.2981	.3663	.4344	.5025	.5707	.6388	.7070	.7751	70	57.2396
7	.0298	.0980	.1661	.2342	.3024	.3705	.4387	.5068	.5750	.6431	.7112	.7794	80	65.4167
8	.0341	.1022	.1704	.2385	.3066	.3748	.4429	.5111	.5792	.6474	.7155	.7836	90	73.5938
9	.0383	.1065	.1746	.2428	.3109	.3790	.4472	.5153	.5835	.6516	.7198	.7879	100	81.7708
10	.0426	.1107	.1789	.2470	.3152	.3833	.4514	.5196	.5877	.6559	.7240	.7922		
11	.0468	.1150	.1831	.2513	.3194	.3876	.4557	.5238	.5920	.6601	.7283	.7964		
12	.0511	.1192	.1874	.2555	.3237	.3918	.4600	.5281	.5962	.6644	.7325	.8007		
13	.0554	.1235	.1917	.2598	.3279	.3961	.4642	.5324	.6005	.6686	.7368	.8049		
14	.0596	.1278	.1959	.2641	.3322	.4003	.4685	.5366	.6048	.6729	.7410	.8092		
15	.0639	.1320	.2002	.2683	.3365	.4046	.4727	.5409	.6090	.6772	.7453	.8134		

Hypotenuse

0	.0000	.1076	.2153	.3229	.4306	.5382	.6459	.7535	.8612	.9688	1.0765	1.1841	10	12.9176
1	.0067	.1144	.2220	.3297	.4373	.5450	.6526	.7603	.8679	.9755	1.0832	1.1908	20	25.8352
2	.0135	.1211	.2287	.3364	.4440	.5517	.6593	.7670	.8746	.9823	1.0899	1.1976	30	38.7528
3	.0202	.1278	.2355	.3431	.4508	.5584	.6661	.7737	.8814	.9890	1.0967	1.2043	40	51.6704
4	.0269	.1346	.2422	.3499	.4575	.5651	.6728	.7804	.8881	.9957	1.1034	1.2110	50	64.5881
5	.0336	.1413	.2489	.3566	.4642	.5719	.6795	.7872	.8948	1.0025	1.1101	1.2178	60	77.5057
6	.0404	.1480	.2556	.3633	.4710	.5786	.6862	.7939	.9015	1.0092	1.1168	1.2245	70	90.4233
7	.0471	.1547	.2624	.3700	.4777	.5853	.6930	.8006	.9083	1.0159	1.1236	1.2312	80	103.3409
8	.0538	.1615	.2691	.3768	.4844	.5921	.6997	.8074	.9150	1.0226	1.1303	1.2379	90	116.2585
9	.0606	.1682	.2758	.3835	.4911	.5988	.7064	.8141	.9217	1.0294	1.1370	1.2447	100	129.1761
10	.0673	.1749	.2826	.3902	.4979	.6055	.7132	.8208	.9285	1.0361	1.1437	1.2514		
11	.0740	.1817	.2893	.3969	.5046	.6122	.7199	.8275	.9352	1.0428	1.1505	1.2581		
12	.0807	.1884	.2960	.4037	.5113	.6190	.7266	.8343	.9419	1.0496	1.1572	1.2648		
13	.0875	.1951	.3028	.4104	.5180	.6257	.7333	.8410	.9486	1.0563	1.1639	1.2716		
14	.0942	.2018	.3095	.4171	.5248	.6324	.7401	.8477	.9554	1.0630	1.1707	1.2783		
15	.1009	.2086	.3162	.4239	.5315	.6392	.7468	.8544	.9621	1.0697	1.1774	1.2850		

Equivalent Angle 39° 27' 06"

Altitude

Batter 9 $\frac{7}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0686	.1372	.2057	.2743	.3429	.4115	.4800	.5486	.6172	.6858	.7543	10 8.2292
1	.0043	.0729	.1414	.2100	.2786	.3472	.4157	.4843	.5529	.6215	.6900	.7586	20 16.4583
2	.0086	.0771	.1457	.2143	.2829	.3515	.4200	.4886	.5572	.6258	.6943	.7629	30 24.6875
3	.0129	.0814	.1500	.2186	.2872	.3557	.4243	.4929	.5615	.6300	.6986	.7672	40 32.9167
4	.0171	.0857	.1543	.2229	.2914	.3600	.4286	.4972	.5658	.6343	.7029	.7715	50 41.1458
5	.0214	.0900	.1586	.2272	.2957	.3643	.4329	.5015	.5700	.6386	.7072	.7758	60 49.3750
6	.0257	.0943	.1629	.2314	.3000	.3686	.4372	.5058	.5743	.6429	.7115	.7801	70 57.6042
7	.0300	.0986	.1672	.2357	.3043	.3729	.4415	.5100	.5786	.6472	.7158	.7843	80 65.8333
8	.0343	.1029	.1714	.2400	.3086	.3772	.4457	.5143	.5829	.6515	.7201	.7886	90 74.0625
9	.0386	.1072	.1757	.2443	.3129	.3815	.4500	.5186	.5872	.6558	.7243	.7929	100 82.2917
10	.0429	.1114	.1800	.2486	.3172	.3857	.4543	.5229	.5915	.6600	.7286	.7972	
11	.0471	.1157	.1843	.2529	.3215	.3900	.4586	.5272	.5958	.6643	.7329	.8015	
12	.0514	.1200	.1886	.2572	.3257	.3943	.4629	.5315	.6000	.6686	.7372	.8058	
13	.0557	.1243	.1929	.2614	.3300	.3986	.4672	.5358	.6043	.6729	.7415	.8101	
14	.0600	.1286	.1972	.2657	.3343	.4029	.4715	.5400	.6086	.6772	.7458	.8143	
15	.0643	.1329	.2014	.2700	.3386	.4072	.4757	.5443	.6129	.6815	.7501	.8186	

Hypotenuse

0	.0000	.1079	.2158	.3238	.4317	.5396	.6475	.7555	.8634	.9713	1.0792	1.1871	10 12.9506
1	.0067	.1147	.2226	.3305	.4384	.5464	.6543	.7622	.8701	.9780	1.0860	1.1939	20 25.9013
2	.0135	.1214	.2293	.3373	.4452	.5531	.6610	.7689	.8769	.9848	1.0927	1.2006	30 38.8519
3	.0202	.1282	.2361	.3440	.4519	.5598	.6678	.7757	.8836	.9915	1.0995	1.2074	40 51.8026
4	.0270	.1349	.2428	.3507	.4587	.5666	.6745	.7824	.8904	.9983	1.1062	1.2141	50 64.7532
5	.0337	.1416	.2496	.3575	.4654	.5733	.6813	.7892	.8971	1.0050	1.1129	1.2209	60 77.7039
6	.0405	.1484	.2563	.3642	.4722	.5801	.6880	.7959	.9038	1.0118	1.1197	1.2276	70 90.6545
7	.0472	.1551	.2631	.3710	.4789	.5868	.6947	.8027	.9106	1.0185	1.1264	1.2344	80 103.6052
8	.0540	.1619	.2698	.3777	.4856	.5936	.7015	.8094	.9173	1.0253	1.1332	1.2411	90 116.5558
9	.0607	.1686	.2766	.3845	.4924	.6003	.7082	.8162	.9241	1.0320	1.1399	1.2478	100 129.5064
10	.0675	.1754	.2833	.3912	.4991	.6071	.7150	.8229	.9308	1.0387	1.1467	1.2546	
11	.0742	.1821	.2900	.3980	.5059	.6138	.7217	.8297	.9376	1.0455	1.1534	1.2613	
12	.0809	.1889	.2968	.4047	.5126	.6206	.7285	.8364	.9443	1.0522	1.1602	1.2681	
13	.0877	.1956	.3035	.4115	.5194	.6273	.7352	.8431	.9511	1.0590	1.1669	1.2748	
14	.0944	.2024	.3103	.4182	.5261	.6340	.7420	.8499	.9578	1.0657	1.1737	1.2816	
15	.1012	.2091	.3170	.4249	.5329	.6408	.7487	.8566	.9646	1.0725	1.1804	1.2883	

Equivalent Angle 39° 37' 45"						Altitude					Batter 9 ¹⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0690	.1380	.2070	.2760	.3451	.4141	.4831	.5521	.6211	.6901	.7591	10	8.2813
1	.0043	.0733	.1423	.2113	.2804	.3494	.4184	.4874	.5564	.6254	.6944	.7634	20	16.5625
2	.0086	.0776	.1466	.2157	.2847	.3537	.4227	.4917	.5607	.6297	.6987	.7677	30	24.8438
3	.0129	.0819	.1510	.2200	.2890	.3580	.4270	.4960	.5650	.6340	.7030	.7721	40	33.1250
4	.0173	.0863	.1553	.2243	.2933	.3623	.4313	.5003	.5693	.6383	.7074	.7764	50	41.4063
5	.0216	.0906	.1596	.2286	.2976	.3666	.4356	.5046	.5736	.6427	.7117	.7807	60	49.6875
6	.0259	.0949	.1639	.2329	.3019	.3709	.4399	.5090	.5780	.6470	.7160	.7850	70	57.9688
7	.0302	.0992	.1682	.2372	.3062	.3752	.4443	.5133	.5823	.6513	.7203	.7893	80	66.2500
8	.0345	.1035	.1725	.2415	.3105	.3796	.4486	.5176	.5866	.6556	.7246	.7936	90	74.5313
9	.0388	.1078	.1768	.2458	.3149	.3839	.4529	.5219	.5909	.6599	.7289	.7979	100	82.8125
10	.0431	.1121	.1812	.2502	.3192	.3882	.4572	.5262	.5952	.6642	.7332	.8022		
11	.0474	.1165	.1855	.2545	.3235	.3925	.4615	.5305	.5995	.6685	.7375	.8066		
12	.0518	.1208	.1898	.2588	.3278	.3968	.4658	.5348	.6038	.6729	.7419	.8109		
13	.0561	.1251	.1941	.2631	.3321	.4011	.4601	.5391	.6082	.6772	.7462	.8152		
14	.0604	.1294	.1984	.2674	.3364	.4054	.4744	.5435	.6125	.6815	.7505	.8195		
15	.0647	.1337	.2027	.2717	.3407	.4097	.4788	.5478	.6168	.6858	.7548	.8238		

Hypotenuse

0	.0000	.1082	.2164	.3246	.4328	.5410	.6492	.7574	.8656	.9738	1.0820	1.1902	10	12.9838
1	.0068	.1150	.2232	.3314	.4396	.5478	.6560	.7642	.8723	.9805	1.0887	1.1969	20	25.9676
2	.0135	.1217	.2299	.3381	.4463	.5545	.6627	.7709	.8791	.9873	1.0955	1.2037	30	38.9514
3	.0203	.1285	.2367	.3449	.4531	.5613	.6695	.7777	.8859	.9941	1.1023	1.2105	40	51.9352
4	.0270	.1352	.2434	.3516	.4598	.5680	.6762	.7844	.8926	1.0008	1.1090	1.2172	50	64.9190
5	.0338	.1420	.2502	.3584	.4666	.5748	.6830	.7912	.8994	1.0076	1.1158	1.2240	60	77.9028
6	.0406	.1488	.2570	.3652	.4734	.5816	.6898	.7980	.9062	1.0144	1.1226	1.2308	70	90.8866
7	.0473	.1555	.2637	.3719	.4801	.5883	.6965	.8047	.9129	1.0211	1.1293	1.2375	80	103.8704
8	.0541	.1623	.2705	.3787	.4869	.5951	.7033	.8115	.9197	1.0279	1.1361	1.2443	90	116.8542
9	.0609	.1691	.2773	.3855	.4937	.6019	.7101	.8182	.9264	1.0346	1.1428	1.2510	100	129.8380
10	.0676	.1758	.2840	.3922	.5004	.6086	.7168	.8250	.9332	1.0414	1.1496	1.2578		
11	.0744	.1826	.2908	.3990	.5072	.6154	.7236	.8318	.9400	1.0482	1.1564	1.2646		
12	.0811	.1893	.2975	.4057	.5139	.6221	.7303	.8385	.9467	1.0549	1.1631	1.2713		
13	.0879	.1961	.3043	.4125	.5207	.6289	.7371	.8453	.9535	1.0617	1.1699	1.2781		
14	.0947	.2029	.3111	.4193	.5275	.6357	.7439	.8521	.9603	1.0685	1.1767	1.2849		
15	.1014	.2096	.3178	.4260	.5342	.6424	.7506	.8588	.9670	1.0752	1.1834	1.2916		

Equivalent Angle 39° 48' 20"

Altitude

Batter 10 to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0694	.1389	.2083	.2778	.3472	.4167	.4861	.5556	.6250	.6944	.7639	10 8.3333
1	.0043	.0738	.1432	.2127	.2821	.3516	.4210	.4905	.5599	.6293	.6988	.7682	20 16.6667
2	.0087	.0781	.1476	.2170	.2865	.3559	.4253	.4948	.5642	.6337	.7031	.7726	30 25.0000
3	.0130	.0825	.1519	.2214	.2908	.3602	.4297	.4991	.5686	.6380	.7075	.7769	40 33.3333
4	.0174	.0868	.1562	.2257	.2951	.3646	.4340	.5035	.5729	.6424	.7118	.7812	50 41.6667
5	.0217	.0911	.1606	.2300	.2995	.3689	.4384	.5078	.5773	.6467	.7161	.7856	60 50.0000
6	.0260	.0955	.1649	.2344	.3038	.3733	.4427	.5122	.5816	.6510	.7205	.7899	70 58.3333
7	.0304	.0998	.1693	.2387	.3082	.3776	.4470	.5165	.5859	.6554	.7248	.7943	80 66.6667
8	.0347	.1042	.1736	.2431	.3125	.3819	.4514	.5208	.5903	.6597	.7292	.7986	90 75.0000
9	.0391	.1085	.1780	.2474	.3168	.3863	.4557	.5252	.5946	.6641	.7335	.8030	100 83.3333
10	.0434	.1128	.1823	.2517	.3212	.3906	.4601	.5295	.5990	.6684	.7378	.8073	
11	.0477	.1172	.1866	.2561	.3255	.3950	.4644	.5339	.6033	.6727	.7422	.8116	
12	.0521	.1215	.1910	.2604	.3299	.3993	.4688	.5382	.6076	.6771	.7465	.8160	
13	.0564	.1259	.1953	.2648	.3342	.4036	.4731	.5425	.6120	.6814	.7509	.8203	
14	.0608	.1302	.1997	.2691	.3385	.4080	.4774	.5469	.6163	.6858	.7552	.8247	
15	.0651	.1345	.2040	.2734	.3429	.4123	.4818	.5512	.6207	.6901	.7595	.8290	

Hypotenuse

0	.0000	.1085	.2170	.3254	.4339	.5424	.6509	.7593	.8678	.9763	1.0848	1.1932	10 13.0171
1	.0068	.1153	.2237	.3322	.4407	.5492	.6576	.7661	.8746	.9831	1.0915	1.2000	20 26.0342
2	.0136	.1220	.2305	.3390	.4475	.5559	.6644	.7729	.8814	.9898	1.0983	1.2068	30 39.0512
3	.0203	.1288	.2373	.3458	.4542	.5627	.6712	.7797	.8881	.9966	1.1051	1.2136	40 52.0683
4	.0271	.1356	.2441	.3525	.4610	.5695	.6780	.7864	.8949	1.0034	1.1119	1.2204	50 65.0854
5	.0339	.1424	.2509	.3593	.4678	.5763	.6848	.7932	.9017	1.0102	1.1187	1.2271	60 78.1025
6	.0407	.1492	.2576	.3661	.4746	.5831	.6915	.8000	.9085	1.0170	1.1254	1.2339	70 91.1196
7	.0475	.1559	.2644	.3729	.4814	.5898	.6983	.8068	.9153	1.0237	1.1322	1.2407	80 104.1367
8	.0542	.1627	.2712	.3797	.4881	.5966	.7051	.8136	.9220	1.0305	1.1390	1.2475	90 117.1537
9	.0610	.1695	.2780	.3864	.4949	.6034	.7119	.8203	.9288	1.0373	1.1458	1.2543	100 130.1708
10	.0678	.1763	.2847	.3932	.5017	.6102	.7187	.8271	.9356	1.0441	1.1526	1.2610	
11	.0746	.1831	.2915	.4000	.5085	.6170	.7254	.8339	.9424	1.0509	1.1593	1.2678	
12	.0814	.1898	.2983	.4068	.5153	.6237	.7322	.8407	.9492	1.0576	1.1661	1.2746	
13	.0881	.1966	.3051	.4136	.5220	.6305	.7390	.8475	.9559	1.0644	1.1729	1.2814	
14	.0949	.2034	.3119	.4203	.5288	.6373	.7458	.8542	.9627	1.0712	1.1797	1.2881	
15	.1017	.2102	.3186	.4271	.5356	.6441	.7526	.8610	.9695	1.0780	1.1865	1.2949	

Equivalent Angle 39° 58' 53"						Altitude				Batter 10 ¹ / ₁₆ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0699	.1398	.2096	.2795	.3494	.4193	.4891	.5590	.6289	.6988	.7687	10	8.3854
1	.0044	.0742	.1441	.2140	.2839	.3538	.4236	.4935	.5634	.6333	.7032	.7730	20	16.7708
2	.0087	.0786	.1485	.2184	.2882	.3581	.4280	.4979	.5678	.6376	.7075	.7774	30	25.1563
3	.0131	.0830	.1529	.2227	.2926	.3625	.4324	.5023	.5721	.6420	.7119	.7818	40	33.5417
4	.0175	.0873	.1572	.2271	.2970	.3669	.4367	.5066	.5765	.6464	.7163	.7861	50	41.9271
5	.0218	.0917	.1616	.2315	.3014	.3712	.4411	.5110	.5809	.6507	.7206	.7905	60	50.3125
6	.0262	.0961	.1660	.2358	.3057	.3756	.4455	.5154	.5852	.6551	.7250	.7949	70	58.6979
7	.0306	.1005	.1703	.2402	.3101	.3800	.4498	.5197	.5896	.6595	.7294	.7992	80	67.0833
8	.0349	.1048	.1747	.2446	.3145	.3843	.4542	.5241	.5940	.6638	.7337	.8036	90	75.4688
9	.0393	.1092	.1791	.2489	.3188	.3887	.4586	.5285	.5983	.6682	.7381	.8080	100	83.8542
10	.0437	.1136	.1834	.2533	.3232	.3931	.4629	.5328	.6027	.6726	.7425	.8123		
11	.0480	.1179	.1878	.2577	.3276	.3974	.4673	.5372	.6071	.6769	.7468	.8167		
12	.0524	.1223	.1922	.2620	.3319	.4018	.4717	.5416	.6114	.6813	.7512	.8211		
13	.0568	.1267	.1965	.2664	.3363	.4062	.4760	.5459	.6158	.6857	.7556	.8254		
14	.0611	.1310	.2009	.2708	.3407	.4105	.4804	.5503	.6202	.6900	.7599	.8298		
15	.0655	.1354	.2053	.2751	.3450	.4149	.4848	.5547	.6245	.6944	.7643	.8342		

Hypotenuse

0	.0000	.1088	.2175	.3263	.4350	.5438	.6525	.7613	.8700	.9788	1.0875	1.1963	10	13.0505
1	.0068	.1156	.2243	.3331	.4418	.5506	.6593	.7681	.8768	.9856	1.0943	1.2031	20	26.1010
2	.0136	.1223	.2311	.3399	.4486	.5574	.6661	.7749	.8836	.9924	1.1011	1.2099	30	39.1515
3	.0204	.1291	.2379	.3467	.4554	.5642	.6729	.7817	.8904	.9992	1.1079	1.2167	40	52.2019
4	.0272	.1359	.2447	.3535	.4622	.5710	.6797	.7885	.8972	1.0060	1.1147	1.2235	50	65.2524
5	.0340	.1427	.2515	.3602	.4690	.5778	.6865	.7953	.9040	1.0128	1.1215	1.2303	60	78.3029
6	.0408	.1495	.2583	.3670	.4758	.5846	.6933	.8021	.9108	1.0196	1.1283	1.2371	70	91.3534
7	.0476	.1563	.2651	.3738	.4826	.5914	.7001	.8089	.9176	1.0264	1.1351	1.2439	80	104.4039
8	.0544	.1631	.2719	.3806	.4894	.5981	.7069	.8157	.9244	1.0332	1.1419	1.2507	90	117.4544
9	.0612	.1699	.2787	.3874	.4962	.6049	.7137	.8225	.9312	1.0400	1.1487	1.2575	100	130.5049
10	.0680	.1767	.2855	.3942	.5030	.6117	.7205	.8292	.9380	1.0468	1.1555	1.2643		
11	.0748	.1835	.2923	.4010	.5098	.6185	.7273	.8360	.9448	1.0536	1.1623	1.2711		
12	.0816	.1903	.2991	.4078	.5166	.6253	.7341	.8428	.9516	1.0604	1.1691	1.2779		
13	.0884	.1971	.3059	.4146	.5234	.6321	.7409	.8496	.9584	1.0671	1.1759	1.2847		
14	.0952	.2039	.3127	.4214	.5302	.6389	.7477	.8564	.9652	1.0739	1.1827	1.2915		
15	.1020	.2107	.3195	.4282	.5370	.6457	.7545	.8632	.9720	1.0807	1.1895	1.2983		

Equivalent Angle 40° 09' 22"

Altitude

Batter 10 $\frac{1}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0703	.1406	.2109	.2813	.3516	.4219	.4922	.5625	.6328	.7031	.7734	10 8.4375
1	.0044	.0747	.1450	.2153	.2856	.3560	.4263	.4966	.5669	.6372	.7075	.7778	20 16.8750
2	.0088	.0791	.1494	.2197	.2900	.3604	.4307	.5010	.5713	.6416	.7119	.7822	30 25.3125
3	.0132	.0835	.1538	.2241	.2944	.3647	.4351	.5054	.5757	.6460	.7163	.7866	40 33.7500
4	.0176	.0879	.1582	.2285	.2988	.3691	.4395	.5098	.5801	.6504	.7207	.7910	50 42.1875
5	.0220	.0923	.1626	.2329	.3032	.3735	.4438	.5142	.5845	.6548	.7251	.7954	60 50.6250
6	.0264	.0967	.1670	.2373	.3076	.3779	.4482	.5186	.5889	.6592	.7295	.7998	70 59.0625
7	.0308	.1011	.1714	.2417	.3120	.3823	.4526	.5229	.5933	.6636	.7339	.8042	80 67.5000
8	.0352	.1055	.1758	.2461	.3164	.3867	.4570	.5273	.5977	.6680	.7383	.8086	90 75.9375
9	.0396	.1099	.1802	.2505	.3208	.3911	.4614	.5317	.6021	.6724	.7427	.8130	100 84.3750
10	.0439	.1143	.1846	.2549	.3252	.3955	.4658	.5361	.6064	.6768	.7471	.8174	
11	.0483	.1187	.1890	.2593	.3296	.3999	.4702	.5405	.6108	.6812	.7515	.8218	
12	.0527	.1230	.1934	.2637	.3340	.4043	.4746	.5449	.6152	.6855	.7559	.8262	
13	.0571	.1274	.1978	.2681	.3384	.4087	.4790	.5493	.6196	.6899	.7603	.8306	
14	.0615	.1318	.2021	.2725	.3428	.4131	.4834	.5537	.6240	.6943	.7646	.8350	
15	.0659	.1362	.2065	.2769	.3472	.4175	.4878	.5581	.6284	.6987	.7690	.8394	

Hypotenuse

0	.0000	.1090	.2181	.3271	.4361	.5452	.6542	.7632	.8723	.9813	1.0903	1.1994	10 13.0840
1	.0068	.1158	.2249	.3339	.4429	.5520	.6610	.7700	.8791	.9881	1.0971	1.2062	20 26.1680
2	.0136	.1227	.2317	.3407	.4498	.5588	.6678	.7769	.8859	.9949	1.1040	1.2130	30 39.2520
3	.0204	.1295	.2385	.3475	.4566	.5656	.6746	.7837	.8927	1.0017	1.1108	1.2198	40 52.3361
4	.0273	.1363	.2453	.3544	.4634	.5724	.6815	.7905	.8995	1.0086	1.1176	1.2266	50 65.4201
5	.0341	.1431	.2521	.3612	.4702	.5792	.6883	.7973	.9063	1.0154	1.1244	1.2334	60 78.5041
6	.0409	.1499	.2590	.3680	.4770	.5861	.6951	.8041	.9132	1.0222	1.1312	1.2403	70 91.5881
7	.0477	.1567	.2658	.3748	.4838	.5929	.7019	.8109	.9200	1.0290	1.1380	1.2471	80 104.6721
8	.0545	.1636	.2726	.3816	.4907	.5997	.7087	.8178	.9268	1.0358	1.1449	1.2539	90 117.7561
9	.0613	.1704	.2794	.3884	.4975	.6065	.7155	.8246	.9336	1.0426	1.1517	1.2607	100 130.8401
10	.0681	.1772	.2862	.3952	.5043	.6133	.7223	.8314	.9404	1.0494	1.1585	1.2675	
11	.0750	.1840	.2930	.4021	.5111	.6201	.7292	.8382	.9472	1.0563	1.1653	1.2743	
12	.0818	.1908	.2998	.4089	.5179	.6269	.7360	.8450	.9540	1.0631	1.1721	1.2811	
13	.0886	.1976	.3067	.4157	.5247	.6338	.7428	.8518	.9609	1.0699	1.1789	1.2880	
14	.0954	.2044	.3135	.4225	.5315	.6406	.7496	.8586	.9677	1.0767	1.1857	1.2948	
15	.1022	.2113	.3203	.4293	.5384	.6474	.7564	.8655	.9745	1.0835	1.1926	1.3016	

Equivalent Angle 40° 19' 48"						Altitude				Batter 10 ³ / ₁₆ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0707	.1415	.2122	.2830	.3537	.4245	.4952	.5660	.6367	.7075	.7782	10	8.4896
1	.0044	.0752	.1459	.2167	.2874	.3582	.4289	.4996	.5704	.6411	.7119	.7826	20	16.9792
2	.0088	.0796	.1503	.2211	.2918	.3626	.4333	.5041	.5748	.6456	.7163	.7871	30	25.4688
3	.0133	.0840	.1548	.2255	.2963	.3670	.4377	.5085	.5792	.6500	.7207	.7915	40	33.9583
4	.0177	.0884	.1592	.2299	.3007	.3714	.4422	.5129	.5837	.6544	.7252	.7959	50	42.4479
5	.0221	.0929	.1636	.2343	.3051	.3758	.4466	.5173	.5881	.6588	.7296	.8003	60	50.9375
6	.0265	.0973	.1680	.2388	.3095	.3803	.4510	.5218	.5925	.6632	.7340	.8047	70	59.4271
7	.0310	.1017	.1724	.2432	.3139	.3847	.4554	.5262	.5969	.6677	.7384	.8092	80	67.9167
8	.0354	.1061	.1769	.2476	.3184	.3891	.4599	.5306	.6013	.6721	.7428	.8136	90	76.4063
9	.0398	.1105	.1813	.2520	.3228	.3935	.4643	.5350	.6058	.6765	.7473	.8180	100	84.8958
10	.0442	.1150	.1857	.2565	.3272	.3979	.4687	.5394	.6102	.6809	.7517	.8224		
11	.0486	.1194	.1901	.2609	.3316	.4024	.4731	.5439	.6146	.6854	.7561	.8268		
12	.0531	.1238	.1946	.2653	.3360	.4068	.4775	.5483	.6190	.6898	.7605	.8313		
13	.0575	.1282	.1990	.2697	.3405	.4112	.4820	.5527	.6235	.6942	.7649	.8357		
14	.0619	.1326	.2034	.2741	.3449	.4156	.4864	.5571	.6279	.6986	.7694	.8401		
15	.0663	.1371	.2078	.2786	.3493	.4201	.4908	.5615	.6323	.7030	.7738	.8445		

Hypotenuse

0	.0000	.1093	.2186	.3279	.4373	.5466	.6559	.7652	.8745	.9838	1.0931	1.2025	10	13.1177
1	.0068	.1161	.2255	.3348	.4441	.5534	.6627	.7720	.8813	.9907	1.1000	1.2093	20	26.2353
2	.0137	.1230	.2323	.3416	.4509	.5602	.6695	.7789	.8882	.9975	1.1068	1.2161	30	39.3530
3	.0205	.1298	.2391	.3484	.4578	.5671	.6764	.7857	.8950	1.0043	1.1136	1.2229	40	52.4706
4	.0273	.1366	.2460	.3553	.4646	.5739	.6832	.7925	.9018	1.0112	1.1205	1.2298	50	65.5883
5	.0342	.1435	.2528	.3621	.4714	.5807	.6900	.7994	.9087	1.0180	1.1273	1.2366	60	78.7060
6	.0410	.1503	.2596	.3689	.4782	.5876	.6969	.8062	.9155	1.0248	1.1341	1.2434	70	91.8236
7	.0478	.1571	.2665	.3758	.4851	.5944	.7037	.8130	.9223	1.0316	1.1410	1.2503	80	104.9413
8	.0547	.1640	.2733	.3826	.4919	.6012	.7105	.8199	.9292	1.0385	1.1478	1.2571	90	118.0589
9	.0615	.1708	.2801	.3894	.4987	.6081	.7174	.8267	.9360	1.0453	1.1546	1.2639	100	131.1766
10	.0683	.1776	.2869	.3963	.5056	.6149	.7242	.8335	.9428	1.0521	1.1615	1.2708		
11	.0752	.1845	.2938	.4031	.5124	.6217	.7310	.8404	.9497	1.0590	1.1683	1.2776		
12	.0820	.1913	.3006	.4099	.5192	.6286	.7379	.8472	.9565	1.0658	1.1751	1.2844		
13	.0888	.1981	.3074	.4168	.5261	.6354	.7447	.8540	.9633	1.0726	1.1820	1.2913		
14	.0956	.2050	.3143	.4236	.5329	.6422	.7515	.8608	.9602	1.0795	1.1888	1.2981		
15	.1025	.2118	.3211	.4304	.5397	.6491	.7584	.8677	.9770	1.0863	1.1956	1.3049		

Equivalent Angle 40° 30' 10"						Altitude				Batter 10 $\frac{1}{4}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0712	.1424	.2135	.2847	.3559	.4271	.4983	.5694	.6406	.7118	.7830	10	8.5417
1	.0044	.0756	.1468	.2180	.2892	.3604	.4315	.5027	.5739	.6451	.7163	.7874	20	17.0833
2	.0089	.0801	.1513	.2224	.2936	.3648	.4360	.5072	.5783	.6495	.7207	.7919	30	25.6250
3	.0133	.0845	.1557	.2269	.2981	.3692	.4404	.5116	.5828	.6540	.7252	.7963	40	34.1667
4	.0178	.0890	.1602	.2313	.3025	.3737	.4449	.5161	.5872	.6584	.7296	.8008	50	42.7083
5	.0222	.0934	.1646	.2358	.3070	.3781	.4493	.5205	.5917	.6629	.7340	.8052	60	51.2500
6	.0267	.0979	.1691	.2402	.3114	.3826	.4538	.5250	.5961	.6673	.7385	.8097	70	59.7917
7	.0311	.1023	.1735	.2447	.3159	.3870	.4582	.5294	.6006	.6718	.7429	.8141	80	68.3333
8	.0356	.1068	.1780	.2491	.3203	.3915	.4627	.5339	.6050	.6762	.7474	.8186	90	76.8750
9	.0400	.1112	.1824	.2536	.3248	.3959	.4671	.5383	.6095	.6807	.7518	.8230	100	85.4167
10	.0445	.1157	.1868	.2580	.3292	.4004	.4716	.5428	.6139	.6851	.7563	.8275		
11	.0489	.1201	.1913	.2625	.3337	.4048	.4760	.5472	.6184	.6896	.7607	.8319		
12	.0534	.1246	.1957	.2669	.3381	.4093	.4805	.5516	.6228	.6940	.7652	.8364		
13	.0578	.1290	.2002	.2714	.3426	.4137	.4849	.5561	.6273	.6985	.7696	.8408		
14	.0623	.1335	.2046	.2758	.3470	.4182	.4894	.5605	.6317	.7029	.7741	.8453		
15	.0667	.1379	.2091	.2803	.3515	.4226	.4938	.5650	.6362	.7074	.7785	.8497		

Hypotenuse

0	.0000	.1096	.2192	.3288	.4384	.5480	.6576	.7672	.8768	.9864	1.0960	1.2055	10	13.1514
1	.0068	.1164	.2260	.3356	.4452	.5548	.6644	.7740	.8836	.9932	1.1028	1.2124	20	26.3029
2	.0137	.1233	.2328	.3425	.4521	.5617	.6713	.7809	.8905	1.0001	1.1097	1.2192	30	39.4543
3	.0205	.1301	.2397	.3493	.4589	.5685	.6781	.7877	.8973	1.0069	1.1165	1.2261	40	52.6057
4	.0274	.1370	.2466	.3562	.4658	.5754	.6850	.7946	.9042	1.0138	1.1234	1.2329	50	65.7571
5	.0342	.1438	.2534	.3630	.4726	.5822	.6918	.8014	.9110	1.0206	1.1302	1.2398	60	78.9086
6	.0411	.1507	.2603	.3699	.4795	.5891	.6987	.8083	.9179	1.0275	1.1371	1.2466	70	92.0600
7	.0479	.1575	.2671	.3767	.4863	.5959	.7055	.8151	.9247	1.0343	1.1439	1.2535	80	105.2114
8	.0548	.1644	.2740	.3836	.4932	.6028	.7124	.8220	.9316	1.0412	1.1508	1.2603	90	118.3629
9	.0616	.1712	.2808	.3904	.5000	.6096	.7192	.8288	.9384	1.0480	1.1576	1.2672	100	131.5143
10	.0685	.1781	.2877	.3973	.5069	.6165	.7261	.8357	.9453	1.0549	1.1644	1.2740		
11	.0753	.1849	.2945	.4041	.5137	.6233	.7329	.8425	.9521	1.0617	1.1713	1.2809		
12	.0822	.1918	.3014	.4110	.5206	.6302	.7398	.8494	.9590	1.0686	1.1781	1.2877		
13	.0890	.1986	.3082	.4178	.5274	.6370	.7466	.8562	.9658	1.0754	1.1850	1.2946		
14	.0959	.2055	.3151	.4247	.5343	.6439	.7535	.8631	.9727	1.0823	1.1918	1.3014		
15	.1027	.2123	.3219	.4315	.5411	.6507	.7603	.8699	.9795	1.0891	1.1987	1.3083		

Equivalent Angle 40° 40' 30"					Altitude					Batter 10 ⁵ / ₁₆ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0716	.1432	.2148	.2865	.3581	.4297	.5013	.5729	.6445	.7161	.7878	10	8.5938
1	.0045	.0761	.1477	.2193	.2909	.3625	.4342	.5058	.5774	.6490	.7206	.7922	20	17.1875
2	.0090	.0806	.1522	.2238	.2954	.3670	.4386	.5103	.5819	.6535	.7251	.7967	30	25.7813
3	.0134	.0850	.1567	.2283	.2999	.3715	.4431	.5147	.5863	.6580	.7296	.8012	40	34.3750
4	.0179	.0895	.1611	.2327	.3044	.3760	.4476	.5192	.5908	.6624	.7340	.8057	50	42.9688
5	.0224	.0940	.1656	.2372	.3088	.3805	.4521	.5237	.5953	.6669	.7385	.8101	60	51.5625
6	.0269	.0985	.1701	.2417	.3133	.3849	.4565	.5282	.5998	.6714	.7430	.8146	70	60.1563
7	.0313	.1029	.1746	.2462	.3178	.3894	.4610	.5326	.6042	.6759	.7475	.8191	80	68.7500
8	.0358	.1074	.1790	.2507	.3223	.3939	.4655	.5371	.6087	.6803	.7520	.8236	90	77.3438
9	.0403	.1119	.1835	.2551	.3267	.3984	.4700	.5416	.6132	.6848	.7564	.8280	100	85.9375
10	.0448	.1164	.1880	.2596	.3312	.4028	.4744	.5461	.6177	.6993	.7609	.8325		
11	.0492	.1208	.1925	.2641	.3357	.4073	.4789	.5505	.6222	.6938	.7654	.8370		
12	.0537	.1253	.1969	.2686	.3402	.4118	.4834	.5550	.6266	.6982	.7699	.8415		
13	.0582	.1298	.2014	.2730	.3446	.4163	.4879	.5595	.6311	.7027	.7743	.8459		
14	.0627	.1343	.2059	.2775	.3491	.4207	.4924	.5640	.6356	.7072	.7788	.8504		
15	.0671	.1388	.2104	.2820	.3536	.4252	.4968	.5684	.6401	.7117	.7833	.8549		

Hypotenuse

0	.0000	.1099	.2198	.3296	.4395	.5494	.6593	.7691	.8790	.9889	1.0988	1.2087	10	13.1853
1	.0069	.1167	.2266	.3365	.4464	.5563	.6661	.7760	.8859	.9958	1.1056	1.2155	20	26.3706
2	.0137	.1236	.2335	.3434	.4532	.5631	.6730	.7829	.8928	1.0026	1.1125	1.2224	30	39.5559
3	.0206	.1305	.2404	.3502	.4601	.5700	.6799	.7897	.8996	1.0095	1.1194	1.2293	40	52.7413
4	.0275	.1373	.2472	.3571	.4670	.5769	.6867	.7966	.9065	1.0164	1.1262	1.2361	50	65.9266
5	.0343	.1442	.2541	.3640	.4738	.5837	.6936	.8035	.9134	1.0232	1.1331	1.2430	60	79.1119
6	.0412	.1511	.2610	.3708	.4807	.5906	.7005	.8103	.9202	1.0301	1.1400	1.2499	70	92.2972
7	.0481	.1579	.2678	.3777	.4876	.5975	.7073	.8172	.9271	1.0370	1.1468	1.2567	80	105.4825
8	.0549	.1648	.2747	.3846	.4944	.6043	.7142	.8241	.9340	1.0438	1.1537	1.2636	90	118.6678
9	.0618	.1717	.2816	.3914	.5013	.6112	.7211	.8309	.9408	1.0507	1.1606	1.2705	100	131.8532
10	.0687	.1786	.2884	.3983	.5082	.6181	.7279	.8378	.9477	1.0576	1.1674	1.2773		
11	.0755	.1854	.2953	.4052	.5151	.6249	.7348	.8447	.9546	1.0644	1.1743	1.2842		
12	.0824	.1923	.3022	.4120	.5219	.6318	.7417	.8516	.9614	1.0713	1.1812	1.2911		
13	.0893	.1992	.3090	.4189	.5288	.6387	.7485	.8584	.9683	1.0782	1.1881	1.2979		
14	.0961	.2060	.3159	.4258	.5357	.6455	.7554	.8653	.9752	1.0850	1.1949	1.3048		
15	.1030	.2129	.3228	.4326	.5425	.6524	.7623	.8722	.9820	1.0919	1.2018	1.3117		

Equivalent Angle 40° 50' 46"						Altitude					Batter 10 ³ / ₈ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0720	.1441	.2161	.2882	.3602	.4323	.5043	.5764	.6484	.7205	.7925	10	8.6458
1	.0045	.0766	.1486	.2206	.2927	.3647	.4368	.5088	.5809	.6529	.7250	.7970	20	17.2917
2	.0090	.0811	.1531	.2252	.2972	.3692	.4413	.5133	.5854	.6574	.7295	.8015	30	25.9375
3	.0135	.0856	.1576	.2297	.3017	.3738	.4458	.5178	.5899	.6619	.7340	.8060	40	34.5833
4	.0180	.0901	.1621	.2342	.3062	.3783	.4503	.5224	.5944	.6664	.7385	.8105	50	43.2292
5	.0225	.0946	.1666	.2387	.3107	.3828	.4548	.5269	.5989	.6710	.7430	.8150	60	51.8750
6	.0270	.0991	.1711	.2432	.3152	.3873	.4593	.5314	.6034	.6755	.7475	.8196	70	60.5208
7	.0315	.1036	.1756	.2477	.3197	.3918	.4638	.5359	.6079	.6800	.7520	.8241	80	69.1667
8	.0360	.1081	.1801	.2522	.3242	.3963	.4683	.5404	.6124	.6845	.7565	.8286	90	77.8125
9	.0405	.1126	.1846	.2567	.3287	.4008	.4728	.5449	.6169	.6890	.7610	.8331	100	86.4583
10	.0450	.1171	.1891	.2612	.3332	.4053	.4773	.5494	.6214	.6935	.7655	.8376		
11	.0495	.1216	.1936	.2657	.3377	.4098	.4818	.5539	.6259	.6980	.7700	.8421		
12	.0540	.1261	.1981	.2702	.3422	.4143	.4863	.5584	.6304	.7025	.7745	.8466		
13	.0585	.1306	.2026	.2747	.3467	.4188	.4908	.5629	.6349	.7070	.7790	.8511		
14	.0630	.1351	.2071	.2792	.3512	.4233	.4953	.5674	.6394	.7115	.7835	.8556		
15	.0675	.1396	.2116	.2837	.3557	.4278	.4998	.5719	.6439	.7160	.7880	.8601		

Hypothénuse

0	.0000	.1102	.2203	.3305	.4406	.5508	.6610	.7711	.8813	.9914	1.1016	1.2118	10	13.2193
1	.0069	.1170	.2272	.3374	.4475	.5577	.6679	.7780	.8882	.9983	1.1085	1.2187	20	26.4386
2	.0138	.1239	.2341	.3443	.4544	.5646	.6747	.7849	.8951	1.0052	1.1154	1.2255	30	39.6580
3	.0207	.1308	.2410	.3511	.4613	.5715	.6816	.7918	.9019	1.0121	1.1223	1.2324	40	52.8773
4	.0275	.1377	.2479	.3580	.4682	.5783	.6885	.7987	.9088	1.0190	1.1292	1.2393	50	66.0966
5	.0344	.1446	.2547	.3649	.4751	.5852	.6954	.8056	.9157	1.0259	1.1360	1.2462	60	79.3159
6	.0413	.1515	.2616	.3718	.4820	.5921	.7023	.8124	.9226	1.0328	1.1429	1.2531	70	92.5352
7	.0482	.1584	.2685	.3787	.4888	.5990	.7092	.8193	.9295	1.0396	1.1498	1.2600	80	105.7546
8	.0551	.1652	.2754	.3856	.4957	.6059	.7160	.8262	.9364	1.0465	1.1567	1.2669	90	118.9739
9	.0620	.1721	.2823	.3924	.5026	.6128	.7229	.8331	.9433	1.0534	1.1636	1.2737	100	132.1932
10	.0689	.1790	.2892	.3993	.5095	.6197	.7298	.8400	.9501	1.0603	1.1705	1.2806		
11	.0757	.1859	.2961	.4062	.5164	.6265	.7367	.8469	.9570	1.0672	1.1773	1.2875		
12	.0826	.1928	.3029	.4131	.5233	.6334	.7436	.8537	.9639	1.0741	1.1842	1.2944		
13	.0895	.1997	.3098	.4200	.5301	.6403	.7505	.8606	.9708	1.0810	1.1911	1.3013		
14	.0964	.2066	.3167	.4269	.5370	.6472	.7574	.8675	.9777	1.0878	1.1980	1.3082		
15	.1033	.2134	.3236	.4338	.5439	.6541	.7642	.8744	.9846	1.0947	1.2049	1.3150		

Equivalent Angle 41° 00' 59"					Altitude					Batter 10 ⁷ / ₁₆ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0725	.1450	.2174	.2899	.3624	.4349	.5074	.5799	.6523	.7248	.7973	10	8.6979
1	.0045	.0770	.1495	.2220	.2945	.3669	.4394	.5119	.5844	.6569	.7294	.8018	20	17.3958
2	.0091	.0815	.1540	.2265	.2990	.3715	.4440	.5164	.5889	.6614	.7339	.8064	30	26.0938
3	.0136	.0861	.1586	.2310	.3035	.3760	.4485	.5210	.5935	.6659	.7384	.8109	40	34.7917
4	.0181	.0906	.1631	.2356	.3081	.3805	.4530	.5255	.5980	.6705	.7429	.8154	50	43.4896
5	.0227	.0951	.1676	.2401	.3126	.3851	.4575	.5300	.6025	.6750	.7475	.8200	60	52.1875
6	.0272	.0997	.1721	.2446	.3171	.3896	.4621	.5346	.6070	.6795	.7520	.8245	70	60.8854
7	.0317	.1042	.1767	.2492	.3216	.3941	.4666	.5391	.6116	.6841	.7565	.8290	80	69.5833
8	.0362	.1087	.1812	.2537	.3262	.3987	.4711	.5436	.6161	.6886	.7611	.8336	90	78.2813
9	.0408	.1133	.1857	.2582	.3307	.4032	.4757	.5481	.6206	.6931	.7656	.8381	100	86.9792
10	.0453	.1178	.1903	.2627	.3352	.4077	.4802	.5527	.6252	.6976	.7701	.8426		
11	.0498	.1223	.1948	.2673	.3398	.4122	.4847	.5572	.6297	.7022	.7747	.8471		
12	.0544	.1268	.1993	.2718	.3443	.4168	.4893	.5617	.6342	.7067	.7792	.8517		
13	.0589	.1314	.2039	.2763	.3488	.4213	.4938	.5663	.6388	.7112	.7837	.8562		
14	.0634	.1359	.2084	.2809	.3534	.4258	.4983	.5708	.6433	.7158	.7882	.8607		
15	.0680	.1404	.2129	.2854	.3579	.4304	.5028	.5753	.6478	.7203	.7928	.8653		

Hypotenuse														
0	.0000	.1104	.2209	.3313	.4418	.5522	.6627	.7731	.8836	.9940	1.1045	1.2149	10	13.2534
1	.0069	.1173	.2278	.3382	.4487	.5591	.6696	.7800	.8905	1.0009	1.1114	1.2218	20	26.5069
2	.0138	.1243	.2347	.3451	.4556	.5660	.6765	.7869	.8974	1.0078	1.1183	1.2287	30	39.7603
3	.0207	.1312	.2416	.3520	.4625	.5729	.6834	.7938	.9043	1.0147	1.1252	1.2356	40	53.0138
4	.0276	.1381	.2485	.3589	.4694	.5798	.6903	.8007	.9112	1.0216	1.1321	1.2425	50	66.2672
5	.0345	.1450	.2554	.3659	.4763	.5867	.6972	.8076	.9181	1.0285	1.1390	1.2494	60	79.5207
6	.0414	.1519	.2623	.3728	.4832	.5936	.7041	.8145	.9250	1.0354	1.1459	1.2563	70	92.7741
7	.0483	.1588	.2692	.3797	.4901	.6005	.7110	.8214	.9319	1.0423	1.1528	1.2632	80	106.0275
8	.0552	.1657	.2761	.3866	.4970	.6074	.7179	.8283	.9388	1.0492	1.1597	1.2701	90	119.2810
9	.0621	.1726	.2830	.3935	.5039	.6144	.7248	.8352	.9457	1.0561	1.1666	1.2770	100	132.5344
10	.0690	.1795	.2899	.4004	.5108	.6213	.7317	.8421	.9526	1.0630	1.1735	1.2839		
11	.0759	.1864	.2968	.4073	.5177	.6282	.7386	.8490	.9595	1.0699	1.1804	1.2908		
12	.0828	.1933	.3037	.4142	.5246	.6351	.7455	.8560	.9664	1.0768	1.1873	1.2977		
13	.0897	.2002	.3106	.4211	.5315	.6420	.7524	.8629	.9733	1.0837	1.1942	1.3046		
14	.0966	.2071	.3175	.4280	.5384	.6489	.7593	.8698	.9802	1.0906	1.2011	1.3115		
15	.1035	.2140	.3244	.4349	.5453	.6558	.7662	.8767	.9871	1.0976	1.2080	1.3184		

Equivalent Angle $41^{\circ} 11' 09''$													Altitude		Batter $10\frac{1}{2}$ to 12	
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet			
0	.0000	.0729	.1458	.2188	.2917	.3646	.4375	.5104	.5833	.6563	.7292	.8021	10	8.7500		
1	.0046	.0775	.1504	.2233	.2962	.3691	.4421	.5150	.5879	.6608	.7337	.8066	20	17.5000		
2	.0091	.0820	.1549	.2279	.3008	.3737	.4466	.5195	.5924	.6654	.7383	.8112	30	26.2500		
3	.0137	.0866	.1595	.2324	.3053	.3783	.4512	.5241	.5970	.6699	.7428	.8158	40	35.0000		
4	.0182	.0911	.1641	.2370	.3099	.3828	.4557	.5286	.6016	.6745	.7474	.8203	50	43.7500		
5	.0228	.0957	.1686	.2415	.3145	.3874	.4603	.5332	.6061	.6790	.7520	.8249	60	52.5000		
6	.0273	.1003	.1732	.2461	.3190	.3919	.4648	.5378	.6107	.6836	.7565	.8294	70	61.2500		
7	.0319	.1048	.1777	.2507	.3236	.3965	.4694	.5423	.6152	.6882	.7611	.8340	80	70.0000		
8	.0365	.1094	.1823	.2552	.3281	.4010	.4740	.5469	.6198	.6927	.7656	.8385	90	78.7500		
9	.0410	.1139	.1868	.2598	.3327	.4056	.4785	.5514	.6243	.6973	.7702	.8431	100	87.5000		
10	.0456	.1185	.1914	.2643	.3372	.4102	.4831	.5560	.6289	.7018	.7747	.8477				
11	.0501	.1230	.1960	.2689	.3418	.4147	.4876	.5605	.6335	.7064	.7793	.8522				
12	.0547	.1276	.2005	.2734	.3464	.4193	.4922	.5651	.6380	.7109	.7839	.8568				
13	.0592	.1322	.2051	.2780	.3509	.4238	.4967	.5697	.6426	.7155	.7884	.8613				
14	.0638	.1367	.2096	.2826	.3555	.4284	.5013	.5742	.6471	.7201	.7930	.8659				
15	.0684	.1413	.2142	.2871	.3600	.4329	.5059	.5788	.6517	.7246	.7975	.8704				

Hypotenuse

0	.0000	.1107	.2215	.3322	.4429	.5537	.6644	.7751	.8858	.9966	1.1073	1.2180	10	13.2877
1	.0069	.1177	.2284	.3391	.4498	.5606	.6713	.7820	.8928	1.0035	1.1142	1.2250	20	26.5754
2	.0138	.1246	.2353	.3460	.4568	.5675	.6782	.7890	.8997	1.0104	1.1211	1.2319	30	39.8630
3	.0208	.1315	.2422	.3530	.4637	.5744	.6851	.7959	.9066	1.0173	1.1281	1.2388	40	53.1507
4	.0277	.1384	.2491	.3599	.4706	.5813	.6921	.8028	.9135	1.0243	1.1350	1.2457	50	66.4384
5	.0346	.1453	.2561	.3668	.4775	.5883	.6990	.8097	.9204	1.0312	1.1419	1.2526	60	79.7261
6	.0415	.1523	.2630	.3737	.4844	.5952	.7059	.8166	.9274	1.0381	1.1488	1.2596	70	93.0138
7	.0484	.1592	.2699	.3806	.4914	.6021	.7128	.8236	.9343	1.0450	1.1558	1.2665	80	106.3015
8	.0554	.1661	.2768	.3876	.4983	.6090	.7197	.8305	.9412	1.0519	1.1627	1.2734	90	119.5891
9	.0623	.1730	.2837	.3945	.5052	.6159	.7267	.8374	.9481	1.0589	1.1696	1.2803	100	132.8768
10	.0692	.1799	.2907	.4014	.5121	.6229	.7336	.8443	.9551	1.0658	1.1765	1.2872		
11	.0761	.1869	.2976	.4083	.5191	.6298	.7405	.8512	.9620	1.0727	1.1834	1.2942		
12	.0830	.1938	.3045	.4152	.5260	.6367	.7474	.8582	.9689	1.0796	1.1904	1.3011		
13	.0900	.2007	.3114	.4222	.5329	.6436	.7544	.8651	.9758	1.0865	1.1973	1.3080		
14	.0969	.2076	.3184	.4291	.5398	.6505	.7613	.8720	.9827	1.0935	1.2042	1.3149		
15	.1038	.2145	.3253	.4360	.5467	.6575	.7682	.8789	.9897	1.1004	1.2111	1.3218		

Equivalent Angle $41^{\circ} 21' 16''$						Altitude					Batter $10\frac{9}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0734	.1467	.2201	.2934	.3668	.4401	.5135	.5868	.6602	.7335	.8069	10	8.8021
1	.0046	.0779	.1513	.2246	.2980	.3713	.4447	.5180	.5914	.6647	.7381	.8114	20	17.6042
2	.0092	.0825	.1559	.2292	.3026	.3759	.4493	.5226	.5960	.6693	.7427	.8160	30	26.4063
3	.0138	.0871	.1605	.2338	.3072	.3805	.4539	.5272	.6006	.6739	.7473	.8206	40	35.2083
4	.0183	.0917	.1650	.2384	.3117	.3851	.4584	.5318	.6051	.6785	.7518	.8252	50	44.0104
5	.0229	.0963	.1696	.2430	.3163	.3897	.4630	.5364	.6097	.6831	.7564	.8298	60	52.8125
6	.0275	.1009	.1742	.2476	.3209	.3943	.4676	.5410	.6143	.6877	.7610	.8344	70	61.6146
7	.0321	.1054	.1788	.2521	.3255	.3988	.4722	.5455	.6189	.6922	.7656	.8389	80	70.4167
8	.0367	.1100	.1834	.2567	.3301	.4034	.4768	.5501	.6235	.6968	.7702	.8435	90	79.2188
9	.0413	.1146	.1880	.2613	.3347	.4080	.4814	.5547	.6281	.7014	.7748	.8481	100	88.0208
10	.0458	.1192	.1925	.2659	.3392	.4126	.4859	.5593	.6326	.7060	.7794	.8527		
11	.0504	.1238	.1971	.2705	.3438	.4172	.4905	.5639	.6372	.7106	.7839	.8573		
12	.0550	.1284	.2017	.2751	.3484	.4218	.4951	.5685	.6418	.7152	.7885	.8619		
13	.0596	.1329	.2063	.2796	.3530	.4264	.4997	.5731	.6464	.7198	.7931	.8665		
14	.0642	.1375	.2109	.2842	.3576	.4309	.5043	.5776	.6510	.7243	.7977	.8710		
15	.0688	.1421	.2155	.2888	.3622	.4355	.5089	.5822	.6556	.7289	.8023	.8756		

Hypotenuse

0	.0000	.1110	.2220	.3331	.4441	.5551	.6661	.7771	.8881	.9992	1.1102	1.2212	10	13.3220
1	.0069	.1180	.2290	.3400	.4510	.5620	.6730	.7841	.8951	1.0061	1.1171	1.2281	20	26.6441
2	.0139	.1249	.2359	.3469	.4579	.5690	.6800	.7910	.9020	1.0130	1.1240	1.2351	30	39.9661
3	.0208	.1318	.2428	.3539	.4649	.5759	.6869	.7979	.9090	1.0200	1.1310	1.2420	40	53.2881
4	.0278	.1388	.2498	.3608	.4718	.5828	.6939	.8049	.9159	1.0269	1.1379	1.2489	50	66.6102
5	.0347	.1457	.2567	.3677	.4788	.5898	.7008	.8118	.9228	1.0338	1.1449	1.2559	60	79.9322
6	.0416	.1526	.2637	.3747	.4857	.5967	.7077	.8188	.9298	1.0408	1.1518	1.2628	70	93.2543
7	.0486	.1596	.2706	.3816	.4926	.6037	.7147	.8257	.9367	1.0477	1.1587	1.2698	80	106.5763
8	.0555	.1665	.2775	.3886	.4996	.6106	.7216	.8326	.9436	1.0547	1.1657	1.2767	90	119.8983
9	.0624	.1735	.2845	.3955	.5065	.6175	.7285	.8396	.9506	1.0616	1.1726	1.2836	100	133.2204
10	.0694	.1804	.2914	.4024	.5135	.6245	.7355	.8465	.9575	1.0685	1.1796	1.2906		
11	.0763	.1873	.2984	.4094	.5204	.6314	.7424	.8534	.9645	1.0755	1.1865	1.2975		
12	.0833	.1943	.3053	.4163	.5273	.6383	.7494	.8604	.9714	1.0824	1.1934	1.3044		
13	.0902	.2012	.3122	.4233	.5343	.6453	.7563	.8673	.9783	1.0894	1.2004	1.3114		
14	.0971	.2082	.3192	.4302	.5412	.6522	.7632	.8743	.9853	1.0963	1.2073	1.3183		
15	.1041	.2151	.3261	.4371	.5481	.6592	.7702	.8812	.9922	1.1032	1.2142	1.3253		



Equivalent Angle $41^{\circ} 31' 20''$										Altitude		Batter $10\frac{5}{8}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0738	.1476	.2214	.2951	.3689	.4427	.5165	.5903	.6641	.7378	.8116	10	8.8542
1	.0046	.0784	.1522	.2260	.2998	.3735	.4473	.5211	.5949	.6687	.7425	.8162	20	17.7083
2	.0092	.0830	.1568	.2306	.3044	.3781	.4519	.5257	.5995	.6733	.7471	.8209	30	26.5625
3	.0138	.0876	.1614	.2352	.3090	.3828	.4565	.5303	.6041	.6779	.7517	.8255	40	35.4167
4	.0184	.0922	.1660	.2398	.3136	.3874	.4612	.5349	.6087	.6825	.7563	.8301	50	44.2708
5	.0231	.0968	.1706	.2444	.3182	.3920	.4658	.5396	.6133	.6871	.7609	.8347	60	53.1250
6	.0277	.1015	.1752	.2490	.3228	.3966	.4704	.5442	.6179	.6917	.7655	.8393	70	61.9792
7	.0323	.1061	.1799	.2536	.3274	.4012	.4750	.5488	.6226	.6963	.7701	.8439	80	70.8333
8	.0369	.1107	.1845	.2582	.3320	.4058	.4796	.5534	.6272	.7010	.7747	.8485	90	79.6875
9	.0415	.1153	.1891	.2629	.3366	.4104	.4842	.5580	.6318	.7056	.7794	.8531	100	88.5417
10	.0461	.1199	.1937	.2675	.3413	.4150	.4888	.5626	.6364	.7102	.7840	.8577		
11	.0507	.1245	.1983	.2721	.3459	.4197	.4934	.5672	.6410	.7148	.7886	.8624		
12	.0553	.1291	.2029	.2767	.3505	.4243	.4980	.5718	.6456	.7194	.7932	.8670		
13	.0600	.1337	.2075	.2813	.3551	.4289	.5027	.5764	.6502	.7240	.7978	.8716		
14	.0646	.1383	.2121	.2859	.3597	.4335	.5073	.5811	.6548	.7286	.8024	.8762		
15	.0692	.1430	.2167	.2905	.3643	.4381	.5119	.5857	.6595	.7332	.8070	.8808		

Hypotenuse

0	.0000	.1113	.2226	.3339	.4452	.5565	.6678	.7791	.8904	1.0017	1.1130	1.2243	10	13.3565
1	.0070	.1183	.2296	.3409	.4522	.5635	.6748	.7861	.8974	1.0087	1.1200	1.2313	20	26.7130
2	.0139	.1252	.2365	.3478	.4591	.5704	.6817	.7930	.9043	1.0157	1.1270	1.2383	30	40.0695
3	.0209	.1322	.2435	.3548	.4661	.5774	.6887	.8000	.9113	1.0226	1.1339	1.2452	40	53.4260
4	.0278	.1391	.2504	.3617	.4730	.5843	.6957	.8070	.9183	1.0296	1.1409	1.2522	50	66.7825
5	.0348	.1461	.2574	.3687	.4800	.5913	.7026	.8139	.9252	1.0365	1.1478	1.2591	60	80.1390
6	.0417	.1530	.2643	.3757	.4870	.5983	.7096	.8209	.9322	1.0435	1.1548	1.2661	70	93.4955
7	.0487	.1600	.2713	.3826	.4939	.6052	.7165	.8278	.9391	1.0504	1.1617	1.2730	80	106.8521
8	.0557	.1670	.2783	.3896	.5009	.6122	.7235	.8348	.9461	1.0574	1.1687	1.2800	90	120.2086
9	.0626	.1739	.2852	.3965	.5078	.6191	.7304	.8417	.9530	1.0643	1.1757	1.2870	100	133.5651
10	.0696	.1809	.2922	.4035	.5148	.6261	.7374	.8487	.9600	1.0713	1.1826	1.2939		
11	.0765	.1878	.2991	.4104	.5217	.6330	.7443	.8557	.9670	1.0783	1.1896	1.3009		
12	.0835	.1948	.3061	.4174	.5287	.6400	.7513	.8626	.9739	1.0852	1.1965	1.3078		
13	.0904	.2017	.3130	.4243	.5357	.6470	.7583	.8696	.9809	1.0922	1.2035	1.3148		
14	.0974	.2087	.3200	.4313	.5426	.6539	.7652	.8765	.9878	1.0991	1.2104	1.3217		
15	.1043	.2137	.3270	.4383	.5496	.6609	.7722	.8835	.9948	1.1061	1.2174	1.3287		

Equivalent Angle 41° 41' 20"						Altitude				Batter 10 ¹¹ / ₁₆ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0742	.1484	.2227	.2969	.3711	.4453	.5195	.5938	.6680	.7422	.8164	10	8.9063
1	.0046	.0789	.1531	.2273	.3015	.3757	.4500	.5242	.5984	.6726	.7468	.8210	20	17.8125
2	.0093	.0835	.1577	.2319	.3062	.3804	.4546	.5288	.6030	.6772	.7515	.8257	30	26.7188
3	.0139	.0881	.1624	.2366	.3108	.3850	.4592	.5334	.6077	.6819	.7561	.8303	40	35.6250
4	.0186	.0928	.1670	.2412	.3154	.3896	.4639	.5381	.6123	.6865	.7607	.8350	50	44.5313
5	.0232	.0974	.1716	.2458	.3201	.3943	.4685	.5427	.6169	.6912	.7654	.8396	60	53.4375
6	.0278	.1021	.1763	.2505	.3247	.3989	.4731	.5474	.6216	.6958	.7700	.8442	70	62.3438
7	.0325	.1067	.1809	.2551	.3293	.4036	.4778	.5520	.6262	.7004	.7747	.8489	80	71.2500
8	.0371	.1113	.1855	.2598	.3340	.4082	.4824	.5566	.6309	.7051	.7793	.8535	90	80.1563
9	.0417	.1360	.1902	.2644	.3386	.4128	.4871	.5613	.6355	.7097	.7839	.8582	100	89.0625
10	.0464	.1206	.1948	.2690	.3433	.4175	.4917	.5659	.6401	.7144	.7886	.8628		
11	.0510	.1252	.1995	.2737	.3479	.4221	.4963	.5706	.6448	.7190	.7932	.8674		
12	.0557	.1299	.2041	.2783	.3525	.4268	.5010	.5752	.6494	.7236	.7979	.8721		
13	.0603	.1345	.2087	.2830	.3572	.4314	.5056	.5798	.6541	.7283	.8025	.8767		
14	.0649	.1392	.2134	.2876	.3618	.4360	.5103	.5845	.6587	.7329	.8071	.8813		
15	.0696	.1438	.2180	.2922	.3665	.4407	.5149	.5891	.6633	.7375	.8118	.8860		

Hypotenuse

0	.0000	.1116	.2232	.3348	.4464	.5580	.6696	.7811	.8927	1.0043	1.1159	1.2275	10	13.3911
1	.0070	.1186	.2302	.3418	.4533	.5649	.6765	.7881	.8997	1.0113	1.1229	1.2345	20	26.7822
2	.0139	.1255	.2371	.3487	.4603	.5719	.6835	.7951	.9067	1.0183	1.1299	1.2415	30	40.1733
3	.0209	.1325	.2441	.3557	.4673	.5789	.6905	.8021	.9137	1.0253	1.1368	1.2484	40	53.5644
4	.0279	.1395	.2511	.3627	.4743	.5859	.6975	.8090	.9206	1.0322	1.1438	1.2554	50	66.9554
5	.0349	.1465	.2581	.3697	.4812	.5928	.7044	.8160	.9276	1.0392	1.1508	1.2624	60	80.3465
6	.0418	.1534	.2650	.3766	.4882	.5998	.7114	.8230	.9346	1.0462	1.1578	1.2694	70	93.7376
7	.0488	.1604	.2720	.3836	.4952	.6068	.7184	.8300	.9416	1.0532	1.1647	1.2763	80	107.1287
8	.0558	.1674	.2790	.3906	.5022	.6138	.7254	.8369	.9485	1.0601	1.1717	1.2833	90	120.5198
9	.0628	.1744	.2860	.3975	.5091	.6207	.7323	.8439	.9555	1.0671	1.1787	1.2903	100	133.9109
10	.0697	.1813	.2929	.4045	.5161	.6277	.7393	.8509	.9625	1.0741	1.1857	1.2973		
11	.0767	.1883	.2999	.4115	.5231	.6347	.7463	.8579	.9695	1.0811	1.1926	1.3042		
12	.0837	.1953	.3069	.4185	.5301	.6417	.7532	.8648	.9764	1.0880	1.1996	1.3112		
13	.0907	.2023	.3139	.4254	.5370	.6486	.7602	.8718	.9834	1.0950	1.2066	1.3182		
14	.0976	.2092	.3208	.4324	.5440	.6556	.7672	.8788	.9904	1.1020	1.2136	1.3252		
15	.1046	.2162	.3278	.4394	.5510	.6626	.7742	.8858	.9974	1.1089	1.2205	1.3321		

Equivalent Angle $41^{\circ} 51' 18''$												Batter $10\frac{3}{4}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0747	.1493	.2240	.2986	.3733	.4479	.5226	.5972	.6719	.7465	.8212	10	8.9583
1	.0047	.0793	.1540	.2286	.3033	.3779	.4526	.5272	.6019	.6765	.7512	.8258	20	17.9167
2	.0093	.0840	.1586	.2333	.3079	.3826	.4572	.5319	.6066	.6812	.7559	.8305	30	26.8750
3	.0140	.0887	.1633	.2380	.3126	.3873	.4619	.5366	.6112	.6859	.7605	.8352	40	35.8333
4	.0187	.0933	.1680	.2426	.3173	.3919	.4666	.5412	.6159	.6905	.7652	.8398	50	44.7917
5	.0233	.0980	.1726	.2473	.3219	.3966	.4712	.5459	.6206	.6952	.7699	.8445	60	53.7500
6	.0280	.1026	.1773	.2520	.3266	.4013	.4759	.5506	.6252	.6999	.7745	.8492	70	62.7083
7	.0327	.1073	.1820	.2566	.3313	.4059	.4806	.5552	.6299	.7045	.7792	.8538	80	71.6667
8	.0373	.1120	.1866	.2613	.3359	.4106	.4852	.5599	.6345	.7092	.7839	.8585	90	80.6250
9	.0420	.1166	.1913	.2660	.3406	.4153	.4899	.5646	.6392	.7139	.7885	.8632	100	89.5833
10	.0467	.1213	.1960	.2706	.3453	.4199	.4946	.5692	.6439	.7185	.7932	.8678		
11	.0513	.1260	.2006	.2753	.3499	.4246	.4992	.5739	.6485	.7232	.7979	.8725		
12	.0560	.1306	.2053	.2799	.3546	.4293	.5039	.5786	.6532	.7279	.8025	.8772		
13	.0607	.1353	.2100	.2846	.3593	.4339	.5086	.5832	.6579	.7325	.8072	.8818		
14	.0653	.1400	.2146	.2893	.3639	.4386	.5132	.5879	.6625	.7372	.8118	.8865		
15	.0700	.1446	.2193	.2939	.3686	.4433	.5179	.5926	.6672	.7419	.8165	.8912		

Hypothénuse

0	.0000	.1119	.2238	.3356	.4475	.5594	.6713	.7832	.8951	1.0069	1.1188	1.2307	10	13.4258
1	.0070	.1189	.2308	.3426	.4545	.5664	.6783	.7902	.9020	1.0139	1.1258	1.2377	20	26.8516
2	.0140	.1259	.2377	.3496	.4615	.5734	.6853	.7972	.9090	1.0209	1.1328	1.2447	30	40.2774
3	.0210	.1329	.2447	.3566	.4685	.5804	.6923	.8041	.9160	1.0279	1.1398	1.2517	40	53.7031
4	.0280	.1399	.2517	.3636	.4755	.5874	.6993	.8111	.9230	1.0349	1.1468	1.2587	50	67.1289
5	.0350	.1468	.2587	.3706	.4825	.5944	.7063	.8181	.9300	1.0419	1.1538	1.2657	60	80.5547
6	.0420	.1538	.2657	.3776	.4895	.6014	.7132	.8251	.9370	1.0489	1.1608	1.2727	70	93.9805
7	.0489	.1608	.2727	.3846	.4965	.6083	.7202	.8321	.9440	1.0559	1.1678	1.2796	80	107.4063
8	.0559	.1678	.2797	.3916	.5035	.6153	.7272	.8391	.9510	1.0629	1.1748	1.2866	90	120.8321
9	.0629	.1748	.2867	.3986	.5105	.6223	.7342	.8461	.9580	1.0699	1.1817	1.2936	100	134.2579
10	.0699	.1818	.2937	.4056	.5175	.6293	.7412	.8531	.9650	1.0769	1.1887	1.3006		
11	.0769	.1888	.3007	.4126	.5244	.6363	.7482	.8601	.9720	1.0839	1.1957	1.3076		
12	.0839	.1958	.3077	.4196	.5314	.6433	.7552	.8671	.9790	1.0908	1.2027	1.3146		
13	.0909	.2028	.3147	.4265	.5384	.6503	.7622	.8741	.9860	1.0978	1.2097	1.3216		
14	.0979	.2098	.3217	.4335	.5454	.6573	.7692	.8811	.9929	1.1048	1.2167	1.3286		
15	.1049	.2168	.3287	.4405	.5524	.6643	.7762	.8881	.9999	1.1118	1.2237	1.3356		

Equivalent Angle 42° 01' 12"						Altitude				Batter 10 ¹³ ₁₆ to 12					
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet		
0	.0000	.0751	.1502	.2253	.3003	.3754	.4505	.5256	.6007	.6758	.7509	.8260	10	9.0104	
1	.0047	.0798	.1549	.2300	.3050	.3801	.4552	.5303	.6054	.6805	.7556	.8306	20	18.0208	
2	.0094	.0845	.1596	.2346	.3097	.3848	.4599	.5350	.6101	.6852	.7603	.8353	30	27.0313	
3	.0141	.0892	.1643	.2393	.3144	.3895	.4646	.5397	.6148	.6899	.7649	.8400	40	36.0417	
4	.0188	.0939	.1689	.2440	.3191	.3942	.4693	.5444	.6195	.6946	.7696	.8447	50	45.0520	
5	.0235	.0986	.1736	.2487	.3238	.3989	.4740	.5491	.6242	.6992	.7743	.8494	60	54.0625	
6	.0282	.1032	.1783	.2534	.3285	.4036	.4787	.5538	.6289	.7039	.7790	.8541	70	63.0729	
7	.0329	.1079	.1830	.2581	.3332	.4083	.4834	.5585	.6335	.7086	.7837	.8588	80	72.0833	
8	.0375	.1126	.1877	.2628	.3379	.4130	.4881	.5632	.6382	.7133	.7884	.8635	90	81.0938	
9	.0422	.1173	.1924	.2675	.3426	.4177	.4928	.5678	.6429	.7180	.7931	.8682	100	90.1042	
10	.0469	.1220	.1971	.2722	.3473	.4224	.4974	.5725	.6476	.7227	.7978	.8729			
11	.0516	.1267	.2018	.2769	.3520	.4271	.5021	.5772	.6523	.7274	.8025	.8776			
12	.0563	.1314	.2065	.2816	.3567	.4317	.5068	.5819	.6570	.7321	.8072	.8823			
13	.0610	.1361	.2112	.2863	.3614	.4364	.5115	.5866	.6617	.7368	.8119	.8870			
14	.0657	.1408	.2159	.2910	.3660	.4411	.5162	.5913	.6664	.7415	.8166	.8917			
15	.0704	.1455	.2206	.2957	.3707	.4458	.5209	.5960	.6711	.7462	.8213	.8964			

Hypotenuse

0	.0000	.1122	.2243	.3365	.4487	.5609	.6730	.7852	.8974	1.0095	1.1217	1.2339	10	13.4606	
1	.0070	.1192	.2314	.3435	.4557	.5679	.6800	.7922	.9044	1.0166	1.1287	1.2409	20	26.9212	
2	.0140	.1262	.2384	.3505	.4627	.5749	.6871	.7992	.9114	1.0236	1.1357	1.2479	30	40.3818	
3	.0210	.1332	.2454	.3575	.4697	.5819	.6941	.8062	.9184	1.0306	1.1427	1.2549	40	53.8424	
4	.0280	.1402	.2524	.3646	.4767	.5889	.7011	.8132	.9254	1.0376	1.1498	1.2619	50	67.3030	
5	.0351	.1472	.2594	.3716	.4837	.5959	.7081	.8203	.9324	1.0446	1.1568	1.2689	60	80.7636	
6	.0421	.1542	.2664	.3786	.4908	.6029	.7151	.8273	.9394	1.0516	1.1638	1.2760	70	94.2242	
7	.0491	.1612	.2734	.3856	.4978	.6099	.7221	.8343	.9464	1.0586	1.1708	1.2830	80	107.6848	
8	.0561	.1683	.2804	.3926	.5048	.6169	.7291	.8413	.9535	1.0656	1.1778	1.2900	90	121.1454	
9	.0631	.1753	.2874	.3996	.5118	.6240	.7361	.8483	.9605	1.0726	1.1848	1.2970	100	134.6059	
10	.0701	.1823	.2945	.4066	.5188	.6310	.7431	.8553	.9675	1.0797	1.1918	1.3040			
11	.0771	.1893	.3015	.4136	.5258	.6380	.7501	.8623	.9745	1.0867	1.1988	1.3110			
12	.0841	.1963	.3085	.4206	.5328	.6450	.7572	.8693	.9815	1.0937	1.2058	1.3180			
13	.0911	.2033	.3155	.4277	.5398	.6520	.7642	.8763	.9885	1.1007	1.2129	1.3250			
14	.0982	.2103	.3225	.4347	.5468	.6590	.7712	.8834	.9955	1.1077	1.2199	1.3320			
15	.1052	.2173	.3295	.4417	.5538	.6660	.7782	.8904	1.0025	1.1147	1.2269	1.3390			

Equivalent Angle 42° 11' 04"						Altitude					Batter 10 $\frac{7}{8}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0755	.1510	.2266	.3021	.3776	.4531	.5286	.6042	.6797	.7552	.8307	10	9.0625
1	.0047	.0802	.1558	.2313	.3068	.3823	.4578	.5334	.6089	.6844	.7599	.8354	20	18.1250
2	.0094	.0850	.1605	.2360	.3115	.3870	.4626	.5381	.6136	.6891	.7646	.8402	30	27.1875
3	.0142	.0897	.1652	.2407	.3162	.3918	.4673	.5428	.6183	.6938	.7694	.8449	40	36.2500
4	.0189	.0944	.1699	.2454	.3210	.3965	.4720	.5475	.6230	.6986	.7741	.8496	50	45.3125
5	.0236	.0991	.1746	.2502	.3257	.4012	.4767	.5522	.6278	.7033	.7788	.8543	60	54.3750
6	.0283	.1038	.1794	.2549	.3304	.4059	.4814	.5570	.6325	.7080	.7835	.8590	70	63.4375
7	.0330	.1086	.1841	.2596	.3351	.4106	.4862	.5617	.6372	.7127	.7882	.8638	80	72.5000
8	.0388	.1133	.1888	.2643	.3398	.4154	.4909	.5664	.6419	.7174	.7930	.8685	90	81.5625
9	.0425	.1180	.1935	.2690	.3446	.4201	.4956	.5711	.6466	.7222	.7977	.8732	100	90.6250
10	.0472	.1227	.1982	.2738	.3493	.4248	.5003	.5758	.6514	.7269	.8024	.8779		
11	.0519	.1274	.2030	.2785	.3540	.4295	.5050	.5806	.6561	.7316	.8071	.8826		
12	.0566	.1322	.2077	.2832	.3587	.4342	.5098	.5853	.6608	.7363	.8118	.8874		
13	.0614	.1369	.2124	.2879	.3634	.4390	.5145	.5900	.6655	.7410	.8166	.8921		
14	.0661	.1416	.2171	.2926	.3682	.4437	.5192	.5947	.6702	.7458	.8213	.8968		
15	.0708	.1463	.2218	.2974	.3729	.4484	.5239	.5994	.6750	.7505	.8260	.9015		

Hypothense

0	.0000	.1125	.2249	.3374	.4499	.5623	.6748	.7872	.8997	1.0122	1.1246	1.2371	10	13.4955
1	.0070	.1195	.2320	.3444	.4569	.5693	.6818	.7943	.9067	1.0192	1.1317	1.2441	20	26.9910
2	.0141	.1265	.2390	.3514	.4639	.5764	.6888	.8013	.9138	1.0262	1.1387	1.2511	30	40.4865
3	.0211	.1335	.2460	.3585	.4709	.5834	.6959	.8083	.9208	1.0333	1.1457	1.2582	40	53.9821
4	.0281	.1406	.2530	.3655	.4780	.5904	.7029	.8154	.9278	1.0403	1.1527	1.2652	50	67.4776
5	.0351	.1476	.2601	.3725	.4850	.5975	.7099	.8224	.9348	1.0473	1.1598	1.2722	60	80.9731
6	.0422	.1546	.2671	.3796	.4920	.6045	.7169	.8294	.9419	1.0543	1.1668	1.2793	70	94.4686
7	.0492	.1617	.2741	.3866	.4991	.6115	.7240	.8364	.9489	1.0614	1.1738	1.2863	80	107.9641
8	.0562	.1687	.2812	.3936	.5061	.6185	.7310	.8435	.9559	1.0684	1.1809	1.2933	90	121.4596
9	.0633	.1757	.2882	.4006	.5131	.6256	.7380	.8505	.9630	1.0754	1.1879	1.3003	100	134.9551
10	.0703	.1828	.2952	.4077	.5201	.6326	.7451	.8575	.9700	1.0825	1.1949	1.3074		
11	.0773	.1898	.3022	.4147	.5272	.6396	.7521	.8646	.9770	1.0895	1.2019	1.3144		
12	.0843	.1968	.3093	.4217	.5342	.6467	.7591	.8716	.9840	1.0965	1.2090	1.3214		
13	.0914	.2038	.3163	.4288	.5412	.6537	.7662	.8786	.9911	1.1035	1.2160	1.3285		
14	.0984	.2109	.3233	.4358	.5483	.6607	.7732	.8856	.9981	1.1106	1.2230	1.3355		
15	.1054	.2179	.3304	.4428	.5553	.6677	.7802	.8927	1.0051	1.1176	1.2301	1.3425		

Equivalent Angle 42° 20' 52"

Altitude

Batter 10 $\frac{15}{16}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0760	.1519	.2279	.3038	.3798	.4557	.5317	.6076	.6836	.7595	.8355	10	9.1146
1	.0047	.0807	.1567	.2326	.3086	.3845	.4605	.5364	.6124	.6883	.7643	.8403	20	18.2292
2	.0095	.0854	.1614	.2374	.3133	.3893	.4652	.5412	.6171	.6931	.7690	.8450	30	27.3438
3	.0142	.0902	.1662	.2421	.3181	.3940	.4700	.5459	.6219	.6978	.7738	.8497	40	36.4583
4	.0190	.0949	.1709	.2469	.3228	.3988	.4747	.5507	.6266	.7026	.7785	.8545	50	45.5729
5	.0237	.0997	.1756	.2516	.3276	.4035	.4795	.5554	.6314	.7073	.7833	.8592	60	54.6875
6	.0285	.1044	.1804	.2563	.3323	.4083	.4842	.5602	.6361	.7121	.7880	.8640	70	63.8021
7	.0332	.1092	.1851	.2611	.3370	.4130	.4890	.5649	.6409	.7168	.7928	.8687	80	72.9167
8	.0380	.1139	.1899	.2658	.3418	.4178	.4937	.5697	.6456	.7216	.7975	.8735	90	82.0313
9	.0427	.1187	.1946	.2706	.3465	.4225	.4985	.5744	.6504	.7263	.8023	.8782	100	91.1458
10	.0475	.1234	.1994	.2753	.3513	.4272	.5032	.5792	.6551	.7311	.8070	.8830		
11	.0522	.1282	.2041	.2801	.3560	.4320	.5079	.5839	.6599	.7358	.8118	.8877		
12	.0570	.1329	.2089	.2848	.3608	.4367	.5127	.5887	.6646	.7406	.8165	.8925		
13	.0617	.1377	.2136	.2896	.3655	.4415	.5174	.5934	.6694	.7453	.8213	.8972		
14	.0665	.1424	.2184	.2943	.3703	.4462	.5222	.5981	.6741	.7501	.8260	.9020		
15	.0712	.1472	.2231	.2991	.3750	.4510	.5269	.6029	.6788	.7548	.8308	.9067		

Hypotenuse

0	.0000	.1128	.2255	.3383	.4510	.5638	.6765	.7893	.9020	1.0147	1.1275	1.2403	10	13.5305
1	.0070	.1198	.2326	.3453	.4581	.5708	.6836	.7963	.9091	1.0218	1.1346	1.2473	20	27.0611
2	.0141	.1268	.2396	.3524	.4651	.5779	.6906	.8034	.9161	1.0289	1.1416	1.2544	30	40.5916
3	.0211	.1339	.2467	.3594	.4722	.5849	.6977	.8104	.9232	1.0359	1.1487	1.2614	40	54.1222
4	.0282	.1409	.2537	.3665	.4792	.5920	.7047	.8175	.9302	1.0430	1.1557	1.2685	50	67.6527
5	.0352	.1480	.2607	.3735	.4863	.5990	.7118	.8245	.9373	1.0500	1.1628	1.2755	60	81.1833
6	.0423	.1550	.2678	.3805	.4933	.6061	.7188	.8316	.9443	1.0571	1.1698	1.2826	70	94.7138
7	.0493	.1621	.2748	.3876	.5003	.6131	.7259	.8386	.9514	1.0641	1.1769	1.2896	80	108.2444
8	.0564	.1691	.2819	.3946	.5074	.6201	.7329	.8457	.9584	1.0712	1.1839	1.2967	90	121.7749
9	.0634	.1762	.2889	.4017	.5144	.6272	.7400	.8527	.9655	1.0782	1.1910	1.3037	100	135.3054
10	.0705	.1832	.2960	.4087	.5215	.6342	.7470	.8598	.9725	1.0853	1.1980	1.3108		
11	.0775	.1903	.3030	.4158	.5285	.6413	.7540	.8668	.9796	1.0923	1.2051	1.3178		
12	.0846	.1973	.3101	.4228	.5356	.6483	.7611	.8738	.9866	1.0994	1.2121	1.3249		
13	.0916	.2044	.3171	.4299	.5426	.6554	.7681	.8809	.9936	1.1064	1.2192	1.3319		
14	.0987	.2114	.3242	.4369	.5497	.6624	.7752	.8879	1.0007	1.1135	1.2262	1.3390		
15	.1057	.2185	.3312	.4440	.5567	.6695	.7822	.8950	1.0077	1.1205	1.2333	1.3460		

Equivalent Angle 42° 30' 37"					Altitude					Batter 11 to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0764	.1528	.2292	.3056	.3819	.4583	.5347	.6111	.6875	.7639	.8403	10	9.1667
1	.0048	.0812	.1576	.2339	.3103	.3867	.4631	.5395	.6159	.6923	.7687	.8451	20	18.3333
2	.0095	.0859	.1623	.2387	.3151	.3915	.4679	.5443	.6207	.6970	.7734	.8498	30	27.5000
3	.0143	.0907	.1671	.2435	.3199	.3963	.4727	.5490	.6254	.7018	.7782	.8546	40	36.6667
4	.0191	.0955	.1719	.2483	.3247	.4010	.4774	.5538	.6302	.7066	.7830	.8594	50	45.8333
5	.0239	.1003	.1766	.2530	.3294	.4058	.4822	.5586	.6350	.7114	.7878	.8641	60	55.0000
6	.0286	.1050	.1814	.2578	.3342	.4106	.4870	.5634	.6398	.7161	.7925	.8689	70	64.1667
7	.0334	.1098	.1862	.2626	.3390	.4154	.4918	.5681	.6445	.7209	.7973	.8737	80	73.3333
8	.0382	.1146	.1910	.2674	.3438	.4201	.4965	.5729	.6493	.7257	.8021	.8785	90	82.5000
9	.0430	.1194	.1957	.2721	.3485	.4249	.5013	.5777	.6541	.7305	.8069	.8832	100	91.6667
10	.0477	.1241	.2005	.2769	.3533	.4297	.5061	.5825	.6589	.7352	.8116	.8880		
11	.0525	.1289	.2053	.2817	.3581	.4345	.5109	.5872	.6636	.7400	.8164	.8928		
12	.0573	.1337	.2101	.2865	.3628	.4392	.5156	.5920	.6684	.7448	.8212	.8976		
13	.0621	.1385	.2148	.2912	.3676	.4440	.5204	.5968	.6732	.7496	.8260	.9023		
14	.0668	.1432	.2196	.2960	.3724	.4488	.5252	.6016	.6780	.7543	.8307	.9071		
15	.0716	.1480	.2244	.3008	.3772	.4536	.5299	.6063	.6827	.7591	.8355	.9119		

Hypotenuse

0	.0000	.1130	.2261	.3391	.4522	.5652	.6783	.7913	.9044	1.0174	1.1305	1.2435	10	13.5657
1	.0071	.1201	.2332	.3462	.4593	.5723	.6853	.7984	.9114	1.0245	1.1375	1.2506	20	27.1314
2	.0141	.1272	.2402	.3533	.4663	.5794	.6924	.8055	.9185	1.0316	1.1446	1.2577	30	40.6971
3	.0212	.1342	.2473	.3603	.4734	.5864	.6995	.8125	.9256	1.0386	1.1517	1.2647	40	54.2627
4	.0283	.1413	.2544	.3674	.4805	.5935	.7065	.8196	.9326	1.0457	1.1587	1.2718	50	67.8284
5	.0353	.1484	.2614	.3745	.4875	.6006	.7136	.8267	.9397	1.0528	1.1658	1.2788	60	81.3941
6	.0424	.1554	.2685	.3815	.4946	.6076	.7207	.8337	.9468	1.0598	1.1729	1.2859	70	94.9598
7	.0495	.1625	.2756	.3886	.5016	.6147	.7277	.8408	.9538	1.0669	1.1799	1.2930	80	108.5255
8	.0565	.1696	.2826	.3957	.5087	.6218	.7348	.8479	.9609	1.0739	1.1870	1.3000	90	122.0912
9	.0636	.1766	.2897	.4027	.5158	.6288	.7419	.8549	.9680	1.0810	1.1941	1.3071	100	135.6568
10	.0707	.1837	.2967	.4098	.5228	.6359	.7489	.8620	.9750	1.0881	1.2011	1.3142		
11	.0777	.1908	.3038	.4169	.5299	.6430	.7560	.8691	.9821	1.0951	1.2082	1.3212		
12	.0848	.1978	.3109	.4239	.5370	.6500	.7631	.8761	.9892	1.1022	1.2153	1.3283		
13	.0919	.2049	.3179	.4310	.5440	.6571	.7701	.8832	.9962	1.1093	1.2223	1.3354		
14	.0989	.2120	.3250	.4381	.5511	.6642	.7772	.8902	1.0033	1.1163	1.2294	1.3424		
15	.1060	.2190	.3321	.4451	.5582	.6712	.7843	.8973	1.0104	1.1234	1.2365	1.3495		

Equivalent Angle 42° 40' 19"					Altitude					Batter 11 $\frac{1}{16}$ to 12				
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0768	.1536	.2305	.3073	.3841	.4609	.5378	.6146	.6914	.7682	.8451	10	9.2188
1	.0048	.0816	.1584	.2353	.3121	.3889	.4657	.5426	.6194	.6962	.7730	.8499	20	18.4375
2	.0096	.0864	.1632	.2401	.3169	.3937	.4705	.5474	.6242	.7010	.7778	.8547	30	27.6563
3	.0144	.0912	.1681	.2449	.3217	.3985	.4753	.5522	.6290	.7058	.7826	.8595	40	36.8750
4	.0192	.0960	.1729	.2497	.3265	.4033	.4801	.5570	.6338	.7106	.7874	.8643	50	46.0938
5	.0240	.1008	.1777	.2545	.3313	.4081	.4849	.5618	.6386	.7154	.7922	.8691	60	55.3125
6	.0288	.1056	.1825	.2593	.3361	.4129	.4897	.5666	.6434	.7202	.7970	.8739	70	64.5313
7	.0336	.1104	.1873	.2641	.3409	.4177	.4945	.5714	.6482	.7250	.8018	.8787	80	73.7500
8	.0384	.1152	.1921	.2689	.3457	.4225	.4993	.5762	.6530	.7298	.8066	.8835	90	82.9688
9	.0432	.1200	.1969	.2737	.3505	.4273	.5042	.5810	.6578	.7346	.8114	.8883	100	92.1875
10	.0480	.1248	.2017	.2785	.3553	.4321	.5090	.5858	.6626	.7394	.8162	.8931		
11	.0528	.1296	.2065	.2833	.3601	.4369	.5138	.5906	.6674	.7442	.8210	.8979		
12	.0576	.1344	.2113	.2881	.3649	.4417	.5186	.5954	.6722	.7490	.8258	.9027		
13	.0624	.1392	.2161	.2929	.3697	.4465	.5234	.6002	.6770	.7538	.8306	.9075		
14	.0672	.1440	.2209	.2977	.3745	.4513	.5282	.6050	.6818	.7586	.8354	.9123		
15	.0720	.1488	.2257	.3025	.3793	.4561	.5330	.6098	.6866	.7634	.8403	.9171		

Hypotenuse

0	.0000	.1133	.2267	.3400	.4534	.5667	.6800	.7934	.9067	1.0201	1.1334	1.2468	10	13.6009
1	.0071	.1204	.2338	.3471	.4604	.5738	.6871	.8005	.9138	1.0272	1.1405	1.2538	20	27.2019
2	.0142	.1275	.2408	.3542	.4675	.5809	.6942	.8076	.9209	1.0342	1.1476	1.2609	30	40.8028
3	.0213	.1346	.2479	.3613	.4746	.5880	.7013	.8146	.9280	1.0413	1.1547	1.2680	40	54.4037
4	.0283	.1417	.2550	.3684	.4817	.5950	.7084	.8217	.9351	1.0484	1.1617	1.2751	50	68.0047
5	.0354	.1488	.2621	.3754	.4888	.6021	.7155	.8288	.9421	1.0555	1.1688	1.2822	60	81.6056
6	.0425	.1558	.2692	.3825	.4959	.6092	.7225	.8359	.9492	1.0626	1.1759	1.2893	70	95.2065
7	.0496	.1629	.2763	.3896	.5030	.6163	.7296	.8430	.9563	1.0697	1.1830	1.2963	80	108.8075
8	.0567	.1700	.2834	.3967	.5100	.6234	.7367	.8501	.9634	1.0767	1.1901	1.3034	90	122.4084
9	.0638	.1771	.2904	.4038	.5171	.6305	.7438	.8571	.9705	1.0838	1.1972	1.3105	100	136.0093
10	.0708	.1842	.2975	.4109	.5242	.6375	.7509	.8642	.9776	1.0909	1.2042	1.3176		
11	.0779	.1913	.3046	.4179	.5313	.6446	.7580	.8713	.9847	1.0980	1.2113	1.3247		
12	.0850	.1983	.3117	.4250	.5384	.6517	.7651	.8784	.9917	1.1051	1.2184	1.3318		
13	.0921	.2054	.3188	.4321	.5455	.6588	.7721	.8855	.9988	1.1122	1.2255	1.3388		
14	.0992	.2125	.3259	.4392	.5525	.6659	.7792	.8926	1.0059	1.1192	1.2326	1.3459		
15	.1063	.2196	.3329	.4463	.5596	.6730	.7863	.8996	1.0130	1.1263	1.2397	1.3530		

Equivalent Angle 42° 49' 59"										Altitude		Batter 11 $\frac{1}{8}$ to 12		
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0773	.1545	.2318	.3090	.3863	.4635	.5408	.6181	.6953	.7726	.8498	10	9.2708
1	.0048	.0821	.1593	.2366	.3139	.3911	.4684	.5456	.6229	.7001	.7774	.8547	20	18.5417
2	.0097	.0869	.1642	.2414	.3187	.3959	.4732	.5505	.6277	.7050	.7822	.8595	30	27.8125
3	.0145	.0917	.1690	.2463	.3235	.4008	.4780	.5553	.6325	.7098	.7871	.8643	40	37.0833
4	.0193	.0966	.1738	.2511	.3283	.4056	.4829	.5601	.6374	.7146	.7919	.8691	50	46.3542
5	.0241	.1014	.1787	.2559	.3332	.4104	.4877	.5649	.6422	.7195	.7967	.8740	60	55.6250
6	.0290	.1062	.1835	.2607	.3380	.4153	.4925	.5698	.6470	.7243	.8015	.8788	70	64.8958
7	.0338	.1111	.1883	.2656	.3428	.4201	.4973	.5746	.6519	.7291	.8064	.8836	80	74.1667
8	.0386	.1159	.1931	.2704	.3477	.4249	.5022	.5794	.6567	.7339	.8112	.8885	90	83.4375
9	.0435	.1207	.1980	.2752	.3525	.4297	.5070	.5843	.6615	.7388	.8160	.8933	100	92.7083
10	.0483	.1255	.2028	.2801	.3573	.4346	.5118	.5891	.6663	.7436	.8209	.8981		
11	.0531	.1304	.2076	.2849	.3621	.4394	.5167	.5939	.6712	.7484	.8257	.9029		
12	.0579	.1352	.2125	.2897	.3670	.4442	.5215	.5987	.6760	.7533	.8305	.9078		
13	.0628	.1400	.2173	.2945	.3718	.4491	.5263	.6036	.6808	.7581	.8353	.9126		
14	.0676	.1449	.2221	.2994	.3766	.4539	.5311	.6084	.6857	.7629	.8402	.9174		
15	.0724	.1497	.2269	.3042	.3815	.4587	.5360	.6132	.6905	.7677	.8450	.9223		

Hypothénuse

0	.0000	.1136	.2273	.3409	.4545	.5682	.6818	.7955	.9091	1.0227	1.1364	1.2500	10	13.6363
1	.0071	.1207	.2344	.3480	.4616	.5753	.6889	.8026	.9162	1.0298	1.1435	1.2571	20	27.2726
2	.0142	.1278	.2415	.3551	.4687	.5824	.6960	.8097	.9233	1.0369	1.1506	1.2642	30	40.9089
3	.0213	.1349	.2486	.3622	.4758	.5895	.7031	.8168	.9304	1.0440	1.1577	1.2713	40	54.5452
4	.0284	.1420	.2557	.3693	.4830	.5966	.7102	.8239	.9375	1.0511	1.1648	1.2784	50	68.1814
5	.0355	.1491	.2628	.3764	.4901	.6037	.7173	.8310	.9446	1.0582	1.1719	1.2855	60	81.8177
6	.0426	.1562	.2699	.3835	.4972	.6108	.7244	.8381	.9517	1.0653	1.1790	1.2926	70	95.4540
7	.0497	.1634	.2770	.3906	.5043	.6179	.7315	.8452	.9588	1.0724	1.1861	1.2997	80	109.0903
8	.0568	.1705	.2841	.3977	.5114	.6250	.7386	.8523	.9659	1.0795	1.1932	1.3068	90	122.7266
9	.0639	.1776	.2912	.4048	.5185	.6321	.7457	.8594	.9730	1.0866	1.2003	1.3139	100	136.3629
10	.0710	.1847	.2983	.4119	.5256	.6392	.7528	.8665	.9801	1.0937	1.2074	1.3210		
11	.0781	.1918	.3054	.4190	.5327	.6463	.7599	.8736	.9872	1.1008	1.2145	1.3281		
12	.0852	.1989	.3125	.4261	.5398	.6534	.7670	.8807	.9943	1.1079	1.2216	1.3352		
13	.0923	.2060	.3196	.4332	.5469	.6605	.7741	.8878	1.0014	1.1151	1.2287	1.3423		
14	.0994	.2131	.3267	.4403	.5540	.6676	.7812	.8949	1.0085	1.1222	1.2358	1.3494		
15	.1065	.2202	.3338	.4474	.5611	.6747	.7883	.9020	1.0156	1.1293	1.2429	1.3565		

Equivalent Angle 42° 59' 35"						Altitude					Batter 11 ³ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0777	.1554	.2331	.3108	.3885	.4661	.5438	.6215	.6992	.7769	.8546	10	9.3229
1	.0049	.0825	.1602	.2379	.3156	.3933	.4710	.5487	.6264	.7041	.7818	.8595	20	18.6458
2	.0097	.0874	.1651	.2428	.3205	.3982	.4759	.5535	.6372	.7089	.7866	.8643	30	27.9688
3	.0146	.0923	.1699	.2476	.3253	.4030	.4807	.5584	.6361	.7138	.7915	.8692	40	37.2917
4	.0194	.0971	.1748	.2525	.3302	.4079	.4856	.5633	.6410	.7186	.7963	.8740	50	46.6146
5	.0243	.1020	.1797	.2574	.3350	.4127	.4904	.5681	.6458	.7235	.8012	.8789	60	55.9375
6	.0291	.1068	.1845	.2622	.3399	.4176	.4953	.5730	.6507	.7284	.8060	.8837	70	65.2604
7	.0340	.1117	.1894	.2671	.3448	.4224	.5001	.5778	.6555	.7332	.8109	.8886	80	74.5833
8	.0388	.1165	.1942	.2719	.3496	.4273	.5050	.5827	.6604	.7381	.8158	.8934	90	83.9063
9	.0437	.1214	.1991	.2768	.3545	.4322	.5098	.5875	.6652	.7429	.8206	.8983	100	93.2292
10	.0486	.1262	.2039	.2816	.3593	.4370	.5147	.5924	.6701	.7478	.8255	.9032		
11	.0534	.1311	.2088	.2865	.3642	.4419	.5196	.5972	.6749	.7526	.8303	.9080		
12	.0583	.1360	.2136	.2913	.3690	.4467	.5244	.6021	.6798	.7575	.8352	.9129		
13	.0631	.1408	.2185	.2962	.3739	.4516	.5293	.6070	.6847	.7623	.8400	.9177		
14	.0680	.1457	.2234	.3011	.3787	.4564	.5341	.6118	.6895	.7672	.8449	.9226		
15	.0728	.1505	.2282	.3059	.3836	.4613	.5390	.6167	.6944	.7721	.8497	.9274		

Hypotenuse														
0	.0000	.1139	.2279	.3418	.4557	.5697	.6836	.7975	.9115	1.0254	1.1393	1.2532	10	13.6718
1	.0071	.1211	.2350	.3489	.4628	.5768	.6907	.8046	.9186	1.0325	1.1464	1.2604	20	27.3435
2	.0142	.1282	.2421	.3560	.4700	.5839	.6978	.8118	.9257	1.0396	1.1536	1.2675	30	41.0153
3	.0214	.1353	.2492	.3632	.4771	.5910	.7049	.8189	.9328	1.0467	1.1607	1.2746	40	54.6870
4	.0285	.1424	.2563	.3703	.4842	.5981	.7121	.8260	.9399	1.0539	1.1678	1.2817	50	68.3588
5	.0356	.1495	.2635	.3774	.4913	.6053	.7192	.8331	.9471	1.0610	1.1749	1.2888	60	82.0305
6	.0427	.1567	.2706	.3845	.4984	.6124	.7263	.8402	.9542	1.0681	1.1820	1.2960	70	95.7023
7	.0498	.1638	.2777	.3916	.5056	.6195	.7334	.8474	.9613	1.0752	1.1892	1.3031	80	109.3740
8	.0570	.1709	.2848	.3988	.5127	.6266	.7406	.8545	.9684	1.0823	1.1963	1.3102	90	123.0458
9	.0641	.1780	.2919	.4059	.5198	.6337	.7477	.8616	.9755	1.0895	1.2034	1.3173	100	136.7175
10	.0712	.1851	.2991	.4130	.5269	.6409	.7548	.8687	.9827	1.0966	1.2105	1.3245		
11	.0783	.1923	.3062	.4201	.5341	.6480	.7619	.8758	.9898	1.1037	1.2176	1.3316		
12	.0854	.1994	.3133	.4272	.5412	.6551	.7690	.8830	.9969	1.1108	1.2248	1.3387		
13	.0926	.2065	.3204	.4344	.5483	.6622	.7762	.8901	1.0040	1.1180	1.2319	1.3458		
14	.0997	.2136	.3276	.4415	.5554	.6693	.7833	.8972	1.0111	1.1251	1.2390	1.3529		
15	.1068	.2207	.3347	.4486	.5625	.6765	.7904	.9043	1.0183	1.1322	1.2461	1.3601		

Equivalent Angle 43° 09' 09"						Altitude					Batter 11½ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0781	.1563	.2344	.3125	.3906	.4688	.5469	.6250	.7031	.7813	.8594	10	9.3750
1	.0049	.0830	.1611	.2393	.3174	.3955	.4736	.5518	.6299	.7080	.7861	.8643	20	18.7500
2	.0098	.0879	.1660	.2442	.3223	.4004	.4785	.5566	.6348	.7129	.7910	.8691	30	28.1250
3	.0146	.0928	.1709	.2490	.3271	.4053	.4834	.5615	.6396	.7178	.7959	.8740	40	37.5000
4	.0195	.0977	.1758	.2539	.3320	.4102	.4883	.5664	.6445	.7227	.8008	.8789	50	46.8750
5	.0244	.1025	.1807	.2588	.3369	.4150	.4932	.5713	.6494	.7275	.8057	.8838	60	56.2500
6	.0293	.1074	.1855	.2637	.3418	.4199	.4980	.5762	.6543	.7324	.8105	.8887	70	65.6250
7	.0342	.1123	.1904	.2686	.3467	.4248	.5029	.5811	.6592	.7373	.8154	.8936	80	75.0000
8	.0391	.1172	.1953	.2734	.3516	.4297	.5078	.5859	.6641	.7422	.8203	.8984	90	84.3750
9	.0439	.1221	.2002	.2783	.3564	.4346	.5127	.5908	.6689	.7471	.8252	.9033	100	93.7500
10	.0488	.1270	.2051	.2832	.3613	.4395	.5176	.5957	.6738	.7520	.8301	.9082		
11	.0537	.1318	.2100	.2881	.3662	.4443	.5225	.6006	.6787	.7568	.8350	.9131		
12	.0586	.1367	.2148	.2930	.3711	.4492	.5273	.6055	.6836	.7617	.8398	.9180		
13	.0635	.1416	.2197	.2979	.3760	.4541	.5322	.6104	.6884	.7666	.8447	.9229		
14	.0684	.1465	.2246	.3027	.3809	.4590	.5371	.6152	.6933	.7715	.8496	.9277		
15	.0732	.1514	.2295	.3076	.3857	.4639	.5420	.6201	.6982	.7764	.8545	.9326		

Hypotenuse

0	.0000	.1142	.2285	.3427	.4569	.5711	.6854	.7996	.9138	1.0280	1.1423	1.2565	10	13.7073
1	.0071	.1214	.2356	.3498	.4640	.5783	.6925	.8067	.9210	1.0352	1.1494	1.2636	20	27.4146
2	.0143	.1285	.2427	.3570	.4712	.5854	.6996	.8139	.9281	1.0423	1.1565	1.2708	30	41.1220
3	.0214	.1356	.2499	.3641	.4783	.5926	.7068	.8210	.9352	1.0495	1.1637	1.2779	40	54.8293
4	.0286	.1428	.2570	.3712	.4855	.5997	.7139	.8282	.9424	1.0566	1.1708	1.2851	50	68.5366
5	.0357	.1499	.2642	.3784	.4926	.6068	.7211	.8353	.9495	1.0637	1.1780	1.2922	60	82.2439
6	.0429	.1571	.2713	.3855	.4997	.6140	.7282	.8424	.9567	1.0709	1.1851	1.2993	70	95.9512
7	.0500	.1642	.2784	.3927	.5069	.6211	.7353	.8496	.9638	1.0780	1.1922	1.3065	80	109.6586
8	.0571	.1713	.2856	.3998	.5140	.6283	.7425	.8567	.9709	1.0852	1.1994	1.3136	90	123.3659
9	.0643	.1785	.2927	.4069	.5212	.6354	.7496	.8639	.9781	1.0923	1.2065	1.3208	100	137.0732
10	.0714	.1856	.2998	.4141	.5283	.6425	.7568	.8710	.9852	1.0994	1.2137	1.3279		
11	.0785	.1928	.3070	.4212	.5354	.6497	.7639	.8781	.9924	1.1066	1.2208	1.3350		
12	.0857	.1999	.3141	.4284	.5426	.6568	.7710	.8853	.9995	1.1137	1.2279	1.3422		
13	.0928	.2070	.3213	.4355	.5497	.6639	.7782	.8924	1.0066	1.1209	1.2351	1.3493		
14	.0999	.2142	.3284	.4426	.5569	.6711	.7853	.8995	1.0138	1.1280	1.2422	1.3565		
15	.1071	.2213	.3355	.4498	.5640	.6782	.7925	.9067	1.0209	1.1351	1.2494	1.3636		

Equivalent Angle 43° 18' 39"

Altitude

Batter 11⁵/₁₆ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0786	.1571	.2357	.3142	.3928	.4714	.5499	.6285	.7070	.7856	.8641	10	9.4271
1	.0049	.0835	.1620	.2406	.3191	.3977	.4763	.5548	.6334	.7119	.7905	.8691	20	18.8542
2	.0098	.0884	.1669	.2455	.3241	.4026	.4812	.5597	.6383	.7169	.7954	.8740	30	28.2813
3	.0147	.0933	.1718	.2504	.3290	.4075	.4861	.5646	.6432	.7218	.8003	.8789	40	37.7083
4	.0196	.0982	.1768	.2553	.3339	.4124	.4910	.5696	.6481	.7267	.8052	.8838	50	47.1354
5	.0245	.1031	.1817	.2602	.3388	.4173	.4959	.5745	.6530	.7316	.8101	.8887	60	56.5625
6	.0295	.1080	.1866	.2651	.3437	.4223	.5008	.5794	.6579	.7365	.8150	.8936	70	65.9896
7	.0344	.1129	.1915	.2700	.3486	.4272	.5057	.5843	.6628	.7414	.8200	.8985	80	75.4167
8	.0393	.1178	.1964	.2750	.3535	.4321	.5106	.5892	.6678	.7463	.8249	.9034	90	84.8438
9	.0442	.1227	.2013	.2799	.3584	.4370	.5155	.5941	.6727	.7512	.8298	.9083	100	94.2708
10	.0491	.1277	.2062	.2848	.3633	.4419	.5205	.5990	.6776	.7561	.8347	.9132		
11	.0540	.1326	.2111	.2897	.3682	.4468	.5254	.6039	.6825	.7610	.8396	.9182		
12	.0589	.1375	.2160	.2946	.3732	.4517	.5303	.6088	.6874	.7660	.8445	.9231		
13	.0638	.1424	.2209	.2995	.3781	.4566	.5352	.6137	.6923	.7709	.8494	.9280		
14	.0687	.1473	.2259	.3044	.3830	.4615	.5401	.6187	.6972	.7758	.8543	.9329		
15	.0736	.1522	.2308	.3093	.3879	.4664	.5450	.6236	.7021	.7807	.8592	.9378		

Hypotenuse

0	.0000	.1145	.2290	.3436	.4581	.5726	.6871	.8017	.9162	1.0307	1.1452	1.2598	10	13.7430
1	.0072	.1217	.2362	.3507	.4653	.5798	.6943	.8088	.9234	1.0379	1.1524	1.2669	20	27.4860
2	.0143	.1288	.2434	.3579	.4724	.5869	.7015	.8160	.9305	1.0450	1.1596	1.2741	30	41.2290
3	.0215	.1360	.2505	.3650	.4796	.5941	.7086	.8231	.9377	1.0522	1.1667	1.2812	40	54.9720
4	.0286	.1432	.2577	.3722	.4867	.6013	.7158	.8303	.9448	1.0594	1.1739	1.2884	50	68.7150
5	.0358	.1503	.2648	.3794	.4939	.6084	.7229	.8375	.9520	1.0665	1.1810	1.2956	60	82.4580
6	.0429	.1575	.2720	.3865	.5010	.6156	.7301	.8446	.9591	1.0737	1.1882	1.3027	70	96.2010
7	.0501	.1646	.2792	.3937	.5082	.6227	.7373	.8518	.9663	1.0808	1.1954	1.3099	80	109.9440
8	.0573	.1718	.2863	.4008	.5154	.6299	.7444	.8589	.9735	1.0880	1.2025	1.3170	90	123.6870
9	.0644	.1789	.2935	.4080	.5225	.6370	.7516	.8661	.9806	1.0951	1.2097	1.3242	100	137.4299
10	.0716	.1861	.3006	.4152	.5297	.6442	.7587	.8733	.9878	1.1023	1.2168	1.3314		
11	.0787	.1933	.3078	.4223	.5368	.6514	.7659	.8804	.9949	1.1095	1.2240	1.3385		
12	.0859	.2004	.3149	.4295	.5440	.6585	.7730	.8876	1.0021	1.1166	1.2311	1.3457		
13	.0931	.2076	.3221	.4366	.5512	.6657	.7802	.8947	1.0093	1.1238	1.2383	1.3528		
14	.1002	.2147	.3293	.4438	.5583	.6728	.7874	.9019	1.0164	1.1309	1.2455	1.3600		
15	.1074	.2219	.3364	.4509	.5655	.6800	.7945	.9090	1.0236	1.1381	1.2526	1.3671		

Equivalent Angle $43^{\circ} 28' 06''$

Altitude

Batter $11\frac{3}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000	.0790	.1580	.2370	.3160	.3950	.4740	.5530	.6319	.7109	.7899	.8689	10 9.4792
1	.0049	.0839	.1629	.2419	.3209	.3999	.4789	.5579	.6369	.7159	.7949	.8739	20 18.9583
2	.0099	.0889	.1679	.2469	.3258	.4048	.4838	.5628	.6418	.7208	.7998	.8788	30 28.4375
3	.0148	.0938	.1728	.2518	.3308	.4098	.4888	.5678	.6468	.7257	.8047	.8837	40 37.9167
4	.0197	.0987	.1777	.2567	.3357	.4147	.4937	.5727	.6517	.7307	.8097	.8887	50 47.3958
5	.0247	.1037	.1827	.2617	.3407	.4197	.4986	.5776	.6566	.7356	.8146	.8936	60 56.8750
6	.0296	.1086	.1876	.2666	.3456	.4246	.5036	.5826	.6616	.7406	.8196	.8985	70 66.3542
7	.0346	.1136	.1925	.2715	.3505	.4295	.5085	.5875	.6665	.7455	.8245	.9035	80 75.8333
8	.0395	.1185	.1975	.2765	.3555	.4345	.5135	.5924	.6714	.7504	.8294	.9084	90 85.3125
9	.0444	.1234	.2024	.2814	.3604	.4394	.5184	.5974	.6764	.7554	.8344	.9134	100 94.7917
10	.0494	.1284	.2074	.2864	.3653	.4443	.5233	.6023	.6813	.7603	.8393	.9183	
11	.0543	.1333	.2123	.2913	.3703	.4493	.5283	.6073	.6863	.7652	.8442	.9232	
12	.0592	.1382	.2172	.2962	.3752	.4542	.5332	.6122	.6912	.7702	.8492	.9282	
13	.0642	.1432	.2222	.3012	.3802	.4591	.5381	.6171	.6961	.7751	.8541	.9331	
14	.0691	.1481	.2271	.3061	.3851	.4641	.5431	.6221	.7011	.7801	.8590	.9380	
15	.0741	.1530	.2320	.3110	.3900	.4690	.5480	.6270	.7060	.7850	.8640	.9430	

Hypotenuse

0	.0000	.1148	.2296	.3445	.4593	.5741	.6889	.8038	.9186	1.0334	1.1482	1.2631	10 13.7788
1	.0072	.1220	.2368	.3516	.4665	.5813	.6961	.8109	.9258	1.0406	1.1554	1.2702	20 27.5575
2	.0144	.1292	.2440	.3588	.4736	.5885	.7033	.8181	.9329	1.0478	1.1626	1.2774	30 41.3363
3	.0215	.1364	.2512	.3660	.4808	.5956	.7105	.8253	.9401	1.0549	1.1698	1.2846	40 55.1151
4	.0287	.1435	.2584	.3732	.4880	.6028	.7176	.8325	.9473	1.0621	1.1769	1.2918	50 68.8939
5	.0359	.1507	.2655	.3803	.4952	.6100	.7248	.8396	.9545	1.0693	1.1841	1.2989	60 82.6726
6	.0431	.1579	.2727	.3875	.5024	.6172	.7320	.8468	.9616	1.0765	1.1913	1.3061	70 96.4514
7	.0502	.1651	.2799	.3947	.5095	.6244	.7392	.8540	.9688	1.0836	1.1985	1.3133	80 110.2302
8	.0574	.1722	.2871	.4019	.5167	.6315	.7464	.8612	.9760	1.0908	1.2056	1.3205	90 124.0090
9	.0646	.1794	.2942	.4090	.5239	.6387	.7535	.8683	.9832	1.0980	1.2128	1.3276	100 137.7877
10	.0718	.1866	.3014	.4162	.5311	.6459	.7607	.8755	.9903	1.1052	1.2200	1.3348	
11	.0789	.1938	.3086	.4234	.5382	.6531	.7679	.8827	.9975	1.1123	1.2272	1.3420	
12	.0861	.2009	.3158	.4306	.5454	.6602	.7750	.8899	1.0047	1.1195	1.2343	1.3492	
13	.0933	.2081	.3229	.4378	.5526	.6674	.7822	.8971	1.0119	1.1267	1.2415	1.3563	
14	.1005	.2153	.3301	.4449	.5598	.6746	.7894	.9042	1.0191	1.1339	1.2487	1.3635	
15	.1076	.2225	.3373	.4521	.5669	.6818	.7966	.9114	1.0262	1.1411	1.2559	1.3707	

Equivalent Angle 43° 37' 31"

Altitude

Batter 11 $\frac{7}{16}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0794	.1589	.2383	.3177	.3971	.4766	.5560	.6354	.7148	.7943	.8737	10	9.5313
1	.0050	.0844	.1638	.2432	.3227	.4021	.4815	.5610	.6404	.7198	.7992	.8787	20	19.0625
2	.0099	.0894	.1688	.2482	.3276	.4071	.4865	.5659	.6453	.7248	.8042	.8836	30	28.5938
3	.0149	.0943	.1737	.2532	.3326	.4120	.4915	.5709	.6503	.7297	.8092	.8886	40	38.1250
4	.0199	.0993	.1787	.2581	.3376	.4170	.4964	.5758	.6553	.7347	.8141	.8936	50	47.6563
5	.0248	.1042	.1837	.2631	.3425	.4220	.5014	.5808	.6602	.7397	.8191	.8985	60	57.1875
6	.0298	.1092	.1886	.2681	.3475	.4269	.5063	.5858	.6652	.7446	.8241	.9035	70	66.7188
7	.0347	.1142	.1936	.2730	.3525	.4319	.5113	.5907	.6702	.7496	.8290	.9084	80	76.2500
8	.0397	.1191	.1986	.2780	.3574	.4368	.5163	.5957	.6751	.7546	.8340	.9134	90	85.7813
9	.0447	.1241	.2035	.2830	.3624	.4418	.5212	.6007	.6801	.7595	.8389	.9184	100	95.3125
10	.0496	.1291	.2085	.2879	.3674	.4468	.5262	.6056	.6851	.7645	.8439	.9233		
11	.0546	.1340	.2135	.2929	.3723	.4517	.5312	.6106	.6900	.7694	.8489	.9283		
12	.0596	.1390	.2184	.2979	.3773	.4567	.5361	.6156	.6950	.7744	.8538	.9333		
13	.0645	.1440	.2234	.3028	.3822	.4617	.5411	.6205	.7000	.7794	.8588	.9382		
14	.0695	.1489	.2284	.3078	.3872	.4666	.5461	.6255	.7049	.7843	.8638	.9432		
15	.0745	.1539	.2333	.3127	.3922	.4716	.5510	.6305	.7099	.7893	.8687	.9482		

Hypotenuse

0	.0000	.1151	.2302	.3454	.4605	.5756	.6907	.8059	.9210	1.0361	1.1512	1.2663	10	13.8147
1	.0072	.1223	.2374	.3526	.4677	.5828	.6979	.8131	.9282	1.0433	1.1584	1.2735	20	27.6293
2	.0144	.1295	.2446	.3598	.4749	.5900	.7051	.8202	.9354	1.0505	1.1656	1.2807	30	41.4440
3	.0216	.1367	.2518	.3670	.4821	.5972	.7123	.8274	.9426	1.0577	1.1728	1.2879	40	55.2586
4	.0288	.1439	.2590	.3741	.4893	.6044	.7195	.8346	.9498	1.0649	1.1800	1.2951	50	69.0733
5	.0360	.1511	.2662	.3813	.4965	.6116	.7267	.8418	.9570	1.0721	1.1872	1.3023	60	82.8879
6	.0432	.1583	.2734	.3885	.5037	.6188	.7339	.8490	.9641	1.0793	1.1944	1.3095	70	96.7026
7	.0504	.1655	.2806	.3957	.5109	.6260	.7411	.8562	.9713	1.0865	1.2016	1.3167	80	110.5172
8	.0576	.1727	.2878	.4029	.5180	.6332	.7483	.8634	.9785	1.0937	1.2088	1.3239	90	124.3319
9	.0648	.1799	.2950	.4101	.5252	.6404	.7555	.8706	.9857	1.1009	1.2160	1.3311	100	138.1466
10	.0720	.1871	.3022	.4173	.5324	.6476	.7627	.8778	.9929	1.1081	1.2232	1.3383		
11	.0791	.1943	.3094	.4245	.5396	.6548	.7699	.8850	1.0001	1.1152	1.2304	1.3455		
12	.0863	.2015	.3166	.4317	.5468	.6620	.7771	.8922	1.0073	1.1224	1.2376	1.3527		
13	.0935	.2087	.3238	.4389	.5540	.6691	.7843	.8994	1.0145	1.1296	1.2448	1.3599		
14	.1007	.2159	.3310	.4461	.5612	.6763	.7915	.9066	1.0217	1.1368	1.2520	1.3671		
15	.1079	.2230	.3382	.4533	.5684	.6835	.7987	.9138	1.0289	1.1440	1.2591	1.3743		

Equivalent Angle $43^{\circ} 46' 52''$

Altitude

Batter $11\frac{1}{2}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0799	.1597	.2396	.3194	.3993	.4792	.5590	.6389	.7188	.7986	.8785	10	9.5833
1	.0050	.0849	.1647	.2446	.3244	.4043	.4842	.5640	.6439	.7237	.8036	.8835	20	19.1667
2	.0100	.0898	.1697	.2496	.3294	.4093	.4891	.5690	.6489	.7287	.8086	.8885	30	28.7500
3	.0150	.0948	.1747	.2546	.3344	.4143	.4941	.5740	.6539	.7337	.8136	.8934	40	38.3333
4	.0200	.0998	.1797	.2595	.3394	.4193	.4991	.5790	.6589	.7387	.8186	.8984	50	47.9167
5	.0250	.1048	.1847	.2645	.3444	.4243	.5041	.5840	.6638	.7437	.8236	.9034	60	57.5000
6	.0299	.1098	.1897	.2695	.3494	.4293	.5091	.5890	.6688	.7487	.8286	.9084	70	67.0833
7	.0349	.1148	.1947	.2745	.3544	.4342	.5141	.5940	.6738	.7537	.8336	.9134	80	76.6667
8	.0399	.1198	.1997	.2795	.3594	.4392	.5191	.5990	.6788	.7587	.8385	.9184	90	86.2500
9	.0449	.1248	.2046	.2845	.3644	.4442	.5241	.6039	.6838	.7637	.8435	.9234	100	95.8333
10	.0499	.1298	.2096	.2895	.3694	.4492	.5291	.6089	.6888	.7687	.8485	.9284		
11	.0549	.1348	.2146	.2945	.3743	.4542	.5341	.6139	.6938	.7737	.8535	.9334		
12	.0599	.1398	.2196	.2995	.3793	.4592	.5391	.6189	.6988	.7786	.8585	.9384		
13	.0649	.1447	.2246	.3045	.3843	.4642	.5441	.6239	.7038	.7836	.8635	.9434		
14	.0699	.1497	.2296	.3095	.3893	.4692	.5490	.6289	.7088	.7886	.8685	.9484		
15	.0749	.1547	.2346	.3145	.3943	.4742	.5540	.6339	.7138	.7936	.8735	.9533		

Hypotenuse

0	.0000	.1154	.2308	.3463	.4617	.5771	.6925	.8080	.9234	1.0388	1.1542	1.2696	10	13.8506
1	.0072	.1226	.2381	.3535	.4689	.5843	.6997	.8152	.9306	1.0460	1.1614	1.2769	20	27.7013
2	.0144	.1298	.2453	.3607	.4761	.5915	.7070	.8224	.9378	1.0532	1.1686	1.2841	30	41.5519
3	.0216	.1371	.2525	.3679	.4833	.5988	.7142	.8296	.9450	1.0604	1.1759	1.2913	40	55.4026
4	.0289	.1443	.2597	.3751	.4905	.6060	.7214	.8368	.9522	1.0677	1.1831	1.2985	50	69.2532
5	.0361	.1515	.2669	.3823	.4978	.6132	.7286	.8440	.9594	1.0749	1.1903	1.3057	60	83.1039
6	.0433	.1587	.2741	.3895	.5050	.6204	.7358	.8512	.9667	1.0821	1.1975	1.3129	70	96.9545
7	.0505	.1659	.2813	.3968	.5122	.6276	.7430	.8585	.9739	1.0893	1.2047	1.3201	80	110.8051
8	.0577	.1731	.2886	.4040	.5194	.6348	.7502	.8657	.9811	1.0965	1.2119	1.3274	90	124.6558
9	.0649	.1803	.2958	.4112	.5266	.6420	.7575	.8729	.9883	1.1037	1.2191	1.3346	100	138.5064
10	.0721	.1876	.3030	.4184	.5338	.6492	.7647	.8801	.9955	1.1109	1.2264	1.3418		
11	.0794	.1948	.3102	.4256	.5410	.6565	.7719	.8873	1.0027	1.1182	1.2336	1.3490		
12	.0866	.2020	.3174	.4328	.5483	.6637	.7791	.8945	1.0099	1.1254	1.2408	1.3562		
13	.0938	.2092	.3246	.4400	.5555	.6709	.7863	.9017	1.0172	1.1326	1.2480	1.3634		
14	.1010	.2164	.3318	.4473	.5627	.6781	.7935	.9089	1.0244	1.1398	1.2552	1.3706		
15	.1082	.2236	.3391	.4545	.5699	.6853	.8007	.9162	1.0316	1.1470	1.2624	1.3779		

Equivalent Angle 43° 56' 11"													Altitude		Batter 11 ⁹ / ₁₆ to 12	
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet			
0	.0000	.0803	.1606	.2409	.3212	.4015	.4818	.5621	.6424	.7227	.8030	.8832	10	9.6354		
1	.0050	.0853	.1656	.2459	.3262	.4065	.4868	.5671	.6474	.7277	.8080	.8883	20	19.2708		
2	.0100	.0903	.1706	.2509	.3312	.4115	.4918	.5721	.6524	.7327	.8130	.8933	30	28.9063		
3	.0151	.0954	.1756	.2559	.3362	.4165	.4968	.5771	.6574	.7377	.8180	.8983	40	38.5417		
4	.0201	.1004	.1807	.2610	.3413	.4215	.5018	.5821	.6624	.7427	.8230	.9033	50	48.1771		
5	.0251	.1054	.1857	.2660	.3463	.4266	.5069	.5872	.6675	.7477	.8280	.9083	60	57.8125		
6	.0301	.1104	.1907	.2710	.3513	.4316	.5119	.5922	.6725	.7528	.8331	.9134	70	67.4479		
7	.0351	.1154	.1957	.2760	.3563	.4366	.5169	.5972	.6775	.7578	.8381	.9184	80	77.0833		
8	.0401	.1204	.2007	.2810	.3613	.4416	.5219	.6022	.6825	.7628	.8431	.9234	90	86.7188		
9	.0452	.1255	.2058	.2861	.3663	.4466	.5269	.6072	.6875	.7678	.8481	.9284	100	96.3542		
10	.0502	.1305	.2108	.2911	.3714	.4517	.5320	.6123	.6925	.7728	.8531	.9334				
11	.0552	.1355	.2158	.2961	.3764	.4567	.5370	.6173	.6976	.7779	.8582	.9384				
12	.0602	.1405	.2208	.3011	.3814	.4617	.5420	.6223	.7026	.7829	.8632	.9435				
13	.0652	.1455	.2258	.3061	.3864	.4667	.5470	.6273	.7076	.7879	.8682	.9485				
14	.0703	.1506	.2308	.3111	.3914	.4717	.5520	.6323	.7126	.7929	.8732	.9535				
15	.0753	.1556	.2359	.3162	.3965	.4768	.5570	.6373	.7176	.7979	.8782	.9585				

Hypotenuse

0	.0000	.1157	.2314	.3472	.4629	.5786	.6943	.8101	.9258	1.0415	1.1572	1.2730	10	13.8867
1	.0072	.1230	.2387	.3544	.4701	.5858	.7016	.8173	.9330	1.0487	1.1645	1.2802	20	27.7735
2	.0145	.1302	.2459	.3616	.4774	.5931	.7088	.8245	.9402	1.0560	1.1717	1.2874	30	41.6602
3	.0217	.1374	.2531	.3689	.4846	.6003	.7160	.8318	.9475	1.0632	1.1789	1.2946	40	55.5469
4	.0289	.1447	.2604	.3761	.4918	.6075	.7233	.8390	.9547	1.0704	1.1862	1.3019	50	69.4336
5	.0362	.1519	.2676	.3833	.4991	.6148	.7305	.8462	.9619	1.0777	1.1934	1.3091	60	83.3204
6	.0434	.1591	.2748	.3906	.5063	.6220	.7377	.8535	.9692	1.0849	1.2006	1.3163	70	97.2071
7	.0506	.1664	.2821	.3978	.5135	.6292	.7450	.8607	.9764	1.0921	1.2079	1.3236	80	111.0938
8	.0579	.1736	.2893	.4050	.5208	.6365	.7522	.8679	.9836	1.0994	1.2151	1.3308	90	124.9806
9	.0651	.1808	.2965	.4123	.5280	.6437	.7594	.8752	.9909	1.1066	1.2223	1.3380	100	138.8673
10	.0723	.1880	.3038	.4195	.5352	.6509	.7667	.8824	.9981	1.1138	1.2296	1.3453		
11	.0796	.1953	.3110	.4267	.5425	.6582	.7739	.8896	1.0053	1.1211	1.2368	1.3525		
12	.0868	.2025	.3182	.4340	.5497	.6654	.7811	.8969	1.0126	1.1283	1.2440	1.3597		
13	.0940	.2097	.3255	.4412	.5569	.6726	.7884	.9041	1.0198	1.1355	1.2513	1.3670		
14	.1013	.2170	.3327	.4484	.5641	.6799	.7956	.9113	1.0270	1.1428	1.2585	1.3742		
15	.1085	.2242	.3399	.4557	.5714	.6871	.8028	.9185	1.0343	1.1500	1.2657	1.3814		

Equivalent Angle $44^{\circ} 05' 26''$

Altitude

Batter $11\frac{5}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0807	.1615	.2422	.3229	.4036	.4844	.5651	.6458	.7266	.8073	.8880	10	9.6875
1	.0050	.0858	.1665	.2472	.3280	.4087	.4894	.5701	.6509	.7316	.8123	.8931	20	19.3750
2	.0101	.0908	.1715	.2523	.3330	.4137	.4945	.5752	.6559	.7367	.8174	.8981	30	29.0625
3	.0151	.0959	.1766	.2573	.3381	.4188	.4995	.5802	.6610	.7417	.8224	.9032	40	38.7500
4	.0202	.1009	.1816	.2624	.3431	.4238	.5046	.5853	.6660	.7467	.8275	.9082	50	48.4375
5	.0252	.1060	.1867	.2674	.3481	.4289	.5096	.5903	.6711	.7518	.8325	.9132	60	58.1250
6	.0303	.1110	.1917	.2725	.3532	.4339	.5146	.5954	.6761	.7568	.8376	.9183	70	67.8125
7	.0353	.1160	.1968	.2775	.3582	.4390	.5197	.6004	.6812	.7619	.8426	.9233	80	77.5000
8	.0404	.1211	.2018	.2826	.3633	.4440	.5247	.6055	.6862	.7669	.8477	.9284	90	87.1875
9	.0454	.1261	.2069	.2876	.3683	.4491	.5298	.6105	.6912	.7720	.8527	.9334	100	96.8750
10	.0505	.1312	.2119	.2926	.3734	.4541	.5348	.6156	.6963	.7770	.8577	.9385		
11	.0555	.1362	.2170	.2977	.3784	.4591	.5399	.6206	.7013	.7821	.8628	.9435		
12	.0605	.1413	.2220	.3027	.3835	.4642	.5449	.6257	.7064	.7871	.8678	.9486		
13	.0656	.1463	.2271	.3078	.3885	.4692	.5500	.6307	.7114	.7922	.8729	.9536		
14	.0706	.1514	.2321	.3128	.3936	.4743	.5550	.6357	.7165	.7972	.8779	.9587		
15	.0757	.1564	.2371	.3179	.3986	.4793	.5601	.6408	.7215	.8022	.8830	.9637		

Hypotenuse

0	.0000	.1160	.2320	.3481	.4641	.5801	.6961	.8122	.9282	1.0442	1.1602	1.2763	10	13.9229
1	.0073	.1233	.2393	.3553	.4713	.5874	.7034	.8194	.9354	1.0515	1.1675	1.2835	20	27.8458
2	.0145	.1305	.2466	.3626	.4786	.5946	.7106	.8267	.9427	1.0587	1.1747	1.2908	30	41.7688
3	.0218	.1378	.2538	.3698	.4859	.6019	.7179	.8339	.9499	1.0660	1.1820	1.2980	40	55.6917
4	.0290	.1450	.2611	.3771	.4931	.6091	.7252	.8412	.9572	1.0732	1.1892	1.3053	50	69.6146
5	.0363	.1523	.2683	.3843	.5004	.6164	.7324	.8484	.9645	1.0805	1.1965	1.3125	60	83.5375
6	.0435	.1595	.2756	.3916	.5076	.6236	.7397	.8557	.9717	1.0877	1.2038	1.3198	70	97.4604
7	.0508	.1668	.2828	.3988	.5149	.6309	.7469	.8629	.9790	1.0950	1.2110	1.3270	80	111.3833
8	.0580	.1740	.2901	.4061	.5221	.6381	.7542	.8702	.9862	1.1022	1.2183	1.3343	90	125.3063
9	.0653	.1813	.2973	.4133	.5294	.6454	.7614	.8774	.9935	1.1095	1.2255	1.3415	100	139.2292
10	.0725	.1885	.3046	.4206	.5366	.6526	.7687	.8847	1.0007	1.1167	1.2328	1.3488		
11	.0798	.1958	.3118	.4278	.5439	.6599	.7759	.8919	1.0080	1.1240	1.2400	1.3560		
12	.0870	.2030	.3191	.4351	.5511	.6671	.7832	.8992	1.0152	1.1312	1.2473	1.3633		
13	.0943	.2103	.3263	.4423	.5584	.6744	.7904	.9064	1.0225	1.1385	1.2545	1.3705		
14	.1015	.2175	.3336	.4496	.5656	.6816	.7977	.9137	1.0297	1.1457	1.2618	1.3778		
15	.1088	.2248	.3408	.4568	.5729	.6889	.8049	.9209	1.0370	1.1530	1.2690	1.3850		

Equivalent Angle 44° 14' 39"

Altitude

Batter 11¹¹/₁₆ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0812	.1623	.2435	.3247	.4058	.4870	.5681	.6493	.7305	.8116	.8928	10	9.7396
1	.0051	.0862	.1674	.2486	.3297	.4109	.4921	.5732	.6544	.7355	.8167	.8979	20	19.4792
2	.0101	.0913	.1725	.2536	.3348	.4160	.4971	.5783	.6595	.7406	.8218	.9029	30	29.2188
3	.0152	.0964	.1775	.2587	.3399	.4210	.5022	.5834	.6645	.7457	.8269	.9080	40	38.9583
4	.0203	.1015	.1826	.2638	.3449	.4261	.5073	.5884	.6696	.7508	.8319	.9131	50	48.6979
5	.0254	.1065	.1877	.2689	.3500	.4312	.5123	.5935	.6747	.7558	.8370	.9182	60	58.4375
6	.0304	.1116	.1928	.2739	.3551	.4363	.5174	.5986	.6797	.7609	.8421	.9232	70	68.1771
7	.0355	.1167	.1978	.2790	.3602	.4413	.5225	.6037	.6848	.7660	.8471	.9283	80	77.9167
8	.0406	.1217	.2029	.2841	.3652	.4464	.5276	.6087	.6899	.7711	.8522	.9334	90	87.6563
9	.0457	.1268	.2080	.2891	.3703	.4515	.5326	.6138	.6950	.7761	.8573	.9384	100	97.3958
10	.0507	.1319	.2131	.2942	.3754	.4565	.5377	.6189	.7000	.7812	.8624	.9435		
11	.0558	.1370	.2181	.2993	.3805	.4616	.5428	.6239	.7051	.7863	.8674	.9486		
12	.0609	.1420	.2232	.3044	.3855	.4667	.5479	.6290	.7102	.7913	.8725	.9537		
13	.0659	.1471	.2283	.3094	.3906	.4718	.5529	.6341	.7153	.7964	.8776	.9587		
14	.0710	.1522	.2333	.3145	.3957	.4768	.5580	.6392	.7203	.8015	.8826	.9638		
15	.0761	.1573	.2384	.3196	.4007	.4819	.5631	.6442	.7254	.8066	.8877	.9689		

Hypotenuse

0	.0000	.1163	.2327	.3490	.4653	.5816	.6980	.8143	.9306	1.0469	1.1633	1.2796	10	13.9592
1	.0073	.1236	.2399	.3563	.4726	.5889	.7052	.8216	.9379	1.0542	1.1705	1.2869	20	27.9184
2	.0145	.1309	.2472	.3635	.4798	.5962	.7125	.8288	.9452	1.0615	1.1778	1.2941	30	41.8776
3	.0218	.1381	.2545	.3708	.4871	.6034	.7198	.8361	.9524	1.0688	1.1851	1.3014	40	55.8368
4	.0291	.1454	.2617	.3781	.4944	.6107	.7270	.8434	.9597	1.0760	1.1923	1.3087	50	69.7960
5	.0364	.1527	.2690	.3853	.5017	.6180	.7343	.8506	.9670	1.0833	1.1996	1.3159	60	83.7552
6	.0436	.1599	.2763	.3926	.5089	.6253	.7416	.8579	.9742	1.0906	1.2069	1.3232	70	97.7145
7	.0509	.1672	.2835	.3999	.5162	.6325	.7489	.8652	.9815	1.0978	1.2142	1.3305	80	111.6737
8	.0582	.1745	.2908	.4071	.5235	.6398	.7561	.8725	.9888	1.1051	1.2214	1.3378	90	125.6329
9	.0654	.1818	.2981	.4144	.5307	.6471	.7634	.8797	.9960	1.1124	1.2287	1.3450	100	139.5921
10	.0727	.1890	.3054	.4217	.5380	.6543	.7707	.8870	1.0033	1.1196	1.2360	1.3523		
11	.0800	.1963	.3126	.4290	.5453	.6616	.7779	.8943	1.0106	1.1269	1.2432	1.3596		
12	.0872	.2036	.3199	.4362	.5526	.6689	.7852	.9015	1.0179	1.1342	1.2505	1.3668		
13	.0945	.2108	.3272	.4435	.5598	.6761	.7925	.9088	1.0251	1.1415	1.2578	1.3741		
14	.1018	.2181	.3344	.4508	.5671	.6834	.7997	.9161	1.0324	1.1487	1.2651	1.3814		
15	.1091	.2254	.3417	.4580	.5744	.6907	.8070	.9233	1.0397	1.1560	1.2723	1.3887		

Equivalent Angle $44^{\circ} 23' 49''$

Altitude

Batter $11\frac{3}{4}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0816	.1632	.2448	.3264	.4080	.4896	.5712	.6528	.7344	.8160	.8976	10	9.7917
1	.0051	.0867	.1683	.2499	.3315	.4131	.4947	.5763	.6579	.7395	.8211	.9027	20	19.5833
2	.0102	.0918	.1734	.2550	.3366	.4182	.4998	.5814	.6630	.7446	.8262	.9078	30	29.3750
3	.0153	.0969	.1785	.2601	.3417	.4233	.5049	.5865	.6681	.7497	.8313	.9129	40	39.1667
4	.0204	.1020	.1836	.2652	.3468	.4284	.5100	.5916	.6732	.7548	.8364	.9180	50	48.9583
5	.0255	.1071	.1887	.2703	.3519	.4335	.5151	.5967	.6783	.7599	.8415	.9231	60	58.7500
6	.0306	.1122	.1938	.2754	.3570	.4386	.5202	.6018	.6834	.7650	.8466	.9282	70	68.5417
7	.0357	.1173	.1989	.2805	.3621	.4437	.5253	.6069	.6885	.7701	.8517	.9333	80	78.3333
8	.0408	.1224	.2040	.2856	.3672	.4488	.5304	.6120	.6936	.7752	.8568	.9384	90	88.1250
9	.0459	.1275	.2091	.2907	.3723	.4539	.5355	.6171	.6987	.7803	.8619	.9435	100	97.9167
10	.0510	.1326	.2142	.2958	.3774	.4590	.5406	.6222	.7038	.7854	.8670	.9486		
11	.0561	.1377	.2193	.3009	.3825	.4641	.5457	.6273	.7089	.7905	.8721	.9537		
12	.0612	.1428	.2244	.3060	.3876	.4692	.5508	.6324	.7140	.7956	.8772	.9588		
13	.0663	.1479	.2295	.3111	.3927	.4743	.5559	.6375	.7191	.8007	.8823	.9639		
14	.0714	.1530	.2346	.3162	.3978	.4794	.5610	.6426	.7242	.8058	.8874	.9690		
15	.0765	.1581	.2397	.3213	.4029	.4845	.5661	.6477	.7293	.8109	.8925	.9741		

Hypotenuse

0	.0000	.1166	.2333	.3499	.4665	.5831	.6998	.8164	.9330	1.0497	1.1663	1.2829	10	13.9956
1	.0073	.1239	.2405	.3572	.4738	.5904	.7071	.8237	.9403	1.0570	1.1736	1.2902	20	27.9912
2	.0145	.1312	.2478	.3645	.4811	.5977	.7144	.8310	.9476	1.0642	1.1809	1.2975	30	41.9868
3	.0219	.1385	.2551	.3718	.4884	.6050	.7216	.8383	.9549	1.0715	1.1882	1.3048	40	55.9824
4	.0292	.1458	.2624	.3790	.4957	.6123	.7289	.8456	.9622	1.0788	1.1955	1.3121	50	69.9780
5	.0364	.1531	.2697	.3863	.5030	.6196	.7362	.8529	.9695	1.0861	1.2027	1.3194	60	83.9736
6	.0437	.1604	.2770	.3936	.5103	.6269	.7435	.8601	.9768	1.0934	1.2100	1.3267	70	97.9692
7	.0510	.1677	.2843	.4009	.5175	.6342	.7508	.8674	.9841	1.1007	1.2173	1.3340	80	111.9648
8	.0583	.1749	.2916	.4082	.5248	.6415	.7581	.8747	.9914	1.1080	1.2246	1.3412	90	125.9604
9	.0656	.1822	.2989	.4155	.5321	.6488	.7654	.8820	.9986	1.1153	1.2319	1.3485	100	139.9560
10	.0729	.1895	.3062	.4228	.5394	.6560	.7727	.8893	1.0059	1.1226	1.2392	1.3558		
11	.0802	.1968	.3134	.4301	.5467	.6633	.7800	.8966	1.0132	1.1299	1.2465	1.3631		
12	.0875	.2041	.3207	.4374	.5540	.6706	.7873	.9039	1.0205	1.1371	1.2538	1.3704		
13	.0948	.2114	.3280	.4447	.5613	.6779	.7945	.9112	1.0278	1.1444	1.2611	1.3777		
14	.1021	.2187	.3353	.4519	.5686	.6852	.8018	.9185	1.0351	1.1517	1.2684	1.3850		
15	.1093	.2260	.3426	.4592	.5759	.6925	.8091	.9258	1.0424	1.1590	1.2756	1.3923		

Equivalent Angle $44^{\circ} 32' 56''$						Altitude					Batter $11\frac{1}{16}$ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0820	.1641	.2461	.3281	.4102	.4922	.5742	.6563	.7383	.8203	.9023	10	9.8438
1	.0051	.0872	.1692	.2512	.3333	.4153	.4973	.5793	.6614	.7434	.8254	.9075	20	19.6875
2	.0103	.0923	.1743	.2563	.3384	.4204	.5024	.5845	.6665	.7485	.8306	.9126	30	29.5313
3	.0154	.0974	.1794	.2615	.3435	.4255	.5076	.5896	.6716	.7537	.8357	.9177	40	39.3750
4	.0205	.1025	.1846	.2666	.3486	.4307	.5127	.5947	.6768	.7588	.8408	.9229	50	49.2188
5	.0256	.1077	.1897	.2717	.3538	.4358	.5178	.5999	.6819	.7639	.8459	.9280	60	59.0625
6	.0308	.1128	.1948	.2769	.3589	.4409	.5229	.6050	.6870	.7690	.8511	.9331	70	68.9063
7	.0359	.1179	.2000	.2820	.3640	.4460	.5281	.6101	.6921	.7742	.8562	.9382	80	78.7500
8	.0410	.1230	.2051	.2871	.3691	.4512	.5332	.6152	.6973	.7793	.8613	.9434	90	88.5938
9	.0461	.1282	.2102	.2922	.3743	.4563	.5383	.6204	.7024	.7844	.8665	.9485	100	98.4375
10	.0513	.1333	.2153	.2974	.3794	.4614	.5435	.6255	.7075	.7896	.8716	.9536		
11	.0564	.1384	.2205	.3025	.3845	.4666	.5486	.6306	.7126	.7947	.8767	.9587		
12	.0615	.1436	.2256	.3076	.3896	.4717	.5537	.6357	.7178	.7998	.8818	.9639		
13	.0667	.1487	.2307	.3127	.3948	.4768	.5588	.6409	.7229	.8049	.8870	.9690		
14	.0718	.1538	.2358	.3179	.3999	.4819	.5640	.6460	.7280	.8101	.8921	.9741		
15	.0769	.1589	.2410	.3230	.4050	.4871	.5691	.6511	.7332	.8152	.8972	.9792		

Hypotenuse

0	.0000	.1169	.2339	.3508	.4677	.5847	.7016	.8185	.9355	1.0524	1.1693	1.2863	10	14.0321
1	.0073	.1242	.2412	.3581	.4750	.5920	.7089	.8258	.9428	1.0597	1.1766	1.2936	20	28.0642
2	.0146	.1316	.2485	.3654	.4824	.5993	.7162	.8332	.9501	1.0670	1.1840	1.3009	30	42.0963
3	.0219	.1389	.2558	.3727	.4897	.6066	.7235	.8405	.9574	1.0743	1.1913	1.3082	40	56.1283
4	.0292	.1462	.2631	.3800	.4970	.6139	.7308	.8478	.9647	1.0816	1.1986	1.3155	50	70.1604
5	.0365	.1535	.2704	.3873	.5043	.6212	.7381	.8551	.9720	1.0889	1.2059	1.3228	60	84.1925
6	.0439	.1608	.2777	.3947	.5116	.6285	.7455	.8624	.9793	1.0963	1.2132	1.3301	70	98.2246
7	.0512	.1681	.2850	.4020	.5189	.6358	.7528	.8697	.9866	1.1036	1.2205	1.3374	80	112.2567
8	.0585	.1754	.2923	.4093	.5262	.6431	.7601	.8770	.9939	1.1109	1.2278	1.3447	90	126.2888
9	.0658	.1827	.2996	.4166	.5335	.6504	.7674	.8843	1.0012	1.1182	1.2351	1.3520	100	140.3209
10	.0731	.1900	.3070	.4239	.5408	.6578	.7747	.8916	1.0086	1.1255	1.2424	1.3594		
11	.0804	.1973	.3143	.4312	.5481	.6651	.7820	.8989	1.0159	1.1328	1.2497	1.3667		
12	.0877	.2046	.3216	.4385	.5554	.6724	.7893	.9062	1.0232	1.1401	1.2570	1.3740		
13	.0950	.2119	.3289	.4458	.5627	.6797	.7966	.9135	1.0305	1.1474	1.2643	1.3813		
14	.1023	.2193	.3362	.4531	.5701	.6870	.8039	.9209	1.0378	1.1547	1.2717	1.3886		
15	.1096	.2266	.3435	.4604	.5774	.6943	.8112	.9282	1.0451	1.1620	1.2790	1.3959		

Equivalent Angle $44^{\circ} 42' 00''$

Altitude

Batter $11\frac{1}{8}$ to 12

1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0825	.1649	.2474	.3299	.4123	.4948	.5773	.6597	.7422	.8247	.9071	10	9.8958
1	.0052	.0876	.1701	.2525	.3350	.4175	.4999	.5824	.6649	.7473	.8298	.9123	20	19.7917
2	.0103	.0928	.1752	.2577	.3402	.4226	.5051	.5876	.6700	.7525	.8350	.9174	30	29.6875
3	.0155	.0979	.1804	.2629	.3453	.4278	.5103	.5927	.6752	.7576	.8401	.9226	40	39.5833
4	.0206	.1031	.1855	.2680	.3505	.4329	.5154	.5979	.6803	.7628	.8453	.9277	50	49.4792
5	.0258	.1082	.1907	.2732	.3556	.4381	.5206	.6030	.6855	.7680	.8504	.9329	60	59.3750
6	.0309	.1134	.1959	.2783	.3608	.4433	.5257	.6082	.6906	.7731	.8556	.9380	70	69.2708
7	.0361	.1185	.2010	.2835	.3659	.4484	.5309	.6133	.6958	.7783	.8607	.9432	80	79.1667
8	.0412	.1237	.2062	.2886	.3711	.4536	.5360	.6185	.7010	.7834	.8659	.9484	90	89.0625
9	.0464	.1289	.2113	.2938	.3762	.4587	.5412	.6236	.7061	.7886	.8710	.9535	100	98.9583
10	.0515	.1340	.2165	.2989	.3814	.4639	.5463	.6288	.7113	.7937	.8762	.9587		
11	.0567	.1392	.2216	.3041	.3866	.4690	.5515	.6340	.7164	.7989	.8813	.9638		
12	.0618	.1443	.2268	.3092	.3917	.4742	.5566	.6391	.7216	*.8040	.8865	.9690		
13	.0670	.1495	.2319	.3144	.3969	.4793	.5618	.6443	.7267	.8092	.8917	.9741		
14	.0722	.1546	.2371	.3196	.4020	.4845	.5669	.6494	.7319	.8143	.8968	.9793		
15	.0773	.1598	.2422	.3247	.4072	.4896	.5721	.6546	.7370	.8195	.9020	.9844		

*mark

Hypotenuse

0	.0000	.1172	.2345	.3517	.4690	.5862	.7034	.8207	.9379	1.0552	1.1724	1.2896	10	14.0687
1	.0073	.1246	.2418	.3590	.4763	.5935	.7108	.8280	.9452	1.0625	1.1797	1.2970	20	28.1373
2	.0147	.1319	.2491	.3664	.4836	.6008	.7181	.8353	.9526	1.0698	1.1870	1.3043	30	42.2060
3	.0220	.1392	.2565	.3737	.4909	.6082	.7254	.8427	.9599	1.0771	1.1944	1.3116	40	56.2747
4	.0293	.1465	.2638	.3810	.4983	.6155	.7327	.8500	.9672	1.0845	1.2017	1.3189	50	70.3434
5	.0366	.1539	.2711	.3884	.5056	.6228	.7401	.8573	.9745	1.0918	1.2090	1.3263	60	84.4120
6	.0440	.1612	.2784	.3957	.5129	.6302	.7474	.8646	.9819	1.0991	1.2164	1.3336	70	98.4807
7	.0513	.1685	.2858	.4030	.5202	.6375	.7547	.8720	.9892	1.1064	1.2237	1.3409	80	112.5494
8	.0586	.1759	.2931	.4103	.5276	.6448	.7621	.8793	.9965	1.1138	1.2310	1.3482	90	126.6180
9	.0659	.1832	.3004	.4177	.5349	.6521	.7694	.8866	1.0039	1.1211	1.2383	1.3556	100	140.6867
10	.0733	.1905	.3078	.4250	.5422	.6595	.7767	.8939	1.0112	1.1284	1.2457	1.3629		
11	.0806	.1978	.3151	.4323	.5496	.6668	.7840	.9013	1.0185	1.1358	1.2530	1.3702		
12	.0879	.2052	.3224	.4396	.5569	.6741	.7914	.9086	1.0258	1.1431	1.2603	1.3776		
13	.0953	.2125	.3297	.4470	.5642	.6815	.7987	.9159	1.0332	1.1504	1.2676	1.3849		
14	.1026	.2198	.3371	.4543	.5715	.6888	.8060	.9233	1.0405	1.1577	1.2750	1.3922		
15	.1099	.2272	.3444	.4616	.5789	.6961	.8133	.9306	1.0478	1.1651	1.2823	1.3995		

Equivalent Angle 44° 51' 01"						Altitude					Batter 11 ¹⁵ / ₁₆ to 12			
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet	
0	.0000	.0829	.1658	.2487	.3316	.4145	.4974	.5803	.6632	.7461	.8290	.9119	10	9.9479
1	.0052	.0881	.1710	.2539	.3368	.4197	.5026	.5855	.6684	.7513	.8342	.9171	20	19.8958
2	.0104	.0933	.1762	.2591	.3420	.4249	.5078	.5907	.6736	.7565	.8394	.9223	30	29.8438
3	.0155	.0984	.1813	.2642	.3471	.4300	.5129	.5958	.6787	.7616	.8445	.9274	40	39.7917
4	.0207	.1036	.1865	.2694	.3523	.4352	.5181	.6010	.6839	.7668	.8497	.9326	50	49.7396
5	.0259	.1088	.1917	.2746	.3575	.4404	.5233	.6062	.6891	.7720	.8549	.9378	60	59.6875
6	.0311	.1140	.1969	.2798	.3627	.4456	.5285	.6114	.6943	.7772	.8601	.9430	70	69.6354
7	.0363	.1192	.2021	.2850	.3679	.4508	.5337	.6166	.6995	.7824	.8653	.9482	80	79.5833
8	.0414	.1243	.2072	.2901	.3730	.4559	.5388	.6217	.7046	.7875	.8704	.9533	90	89.5313
9	.0466	.1295	.2124	.2953	.3782	.4611	.5440	.6269	.7098	.7927	.8756	.9585	100	99.4792
10	.0518	.1347	.2176	.3005	.3834	.4663	.5492	.6321	.7150	.7979	.8808	.9637		
11	.0570	.1399	.2228	.3057	.3886	.4715	.5544	.6373	.7202	.8031	.8860	.9689		
12	.0622	.1451	.2280	.3109	.3938	.4767	.5596	.6425	.7254	.8083	.8912	.9741		
13	.0674	.1503	.2332	.3161	.3990	.4819	.5648	.6477	.7306	.8134	.8963	.9792		
14	.0725	.1554	.2383	.3212	.4041	.4870	.5699	.6528	.7357	.8186	.9015	.9844		
15	.0777	.1606	.2435	.3264	.4093	.4922	.5751	.6580	.7409	.8238	.9067	.9896		

Hypotenuse

0	.0000	.1175	.2351	.3526	.4702	.5877	.7053	.8228	.9404	1.0579	1.1754	1.2930	10	14.1054
1	.0073	.1249	.2424	.3600	.4775	.5951	.7126	.8302	.9477	1.0652	1.1828	1.3003	20	28.2107
2	.0147	.1322	.2498	.3673	.4849	.6024	.7200	.8375	.9551	1.0726	1.1901	1.3077	30	42.3161
3	.0220	.1396	.2571	.3747	.4922	.6098	.7273	.8449	.9624	1.0799	1.1975	1.3150	40	56.4214
4	.0294	.1469	.2645	.3820	.4996	.6171	.7347	.8522	.9697	1.0873	1.2048	1.3224	50	70.5268
5	.0367	.1543	.2718	.3894	.5069	.6245	.7420	.8595	.9771	1.0946	1.2122	1.3297	60	84.6321
6	.0441	.1616	.2792	.3967	.5143	.6318	.7493	.8669	.9844	1.1020	1.2195	1.3371	70	98.7375
7	.0514	.1690	.2865	.4041	.5216	.6391	.7567	.8742	.9918	1.1093	1.2269	1.3444	80	112.8428
8	.0588	.1763	.2939	.4114	.5290	.6465	.7640	.8816	.9991	1.1167	1.2342	1.3518	90	126.9482
9	.0661	.1837	.3012	.4188	.5363	.6538	.7714	.8889	1.0065	1.1240	1.2416	1.3591	100	141.0536
10	.0735	.1910	.3086	.4261	.5436	.6612	.7787	.8963	1.0138	1.1314	1.2489	1.3665		
11	.0808	.1984	.3159	.4334	.5510	.6685	.7861	.9036	1.0212	1.1387	1.2563	1.3738		
12	.0882	.2057	.3232	.4408	.5583	.6759	.7934	.9110	1.0285	1.1461	1.2636	1.3811		
13	.0955	.2131	.3306	.4481	.5657	.6832	.8008	.9183	1.0359	1.1534	1.2710	1.3885		
14	.1029	.2204	.3379	.4555	.5730	.6906	.8081	.9257	1.0432	1.1608	1.2783	1.3958		
15	.1102	.2277	.3453	.4628	.5804	.6979	.8155	.9330	1.0506	1.1681	1.2856	1.4032		

9.9479
19.8958
29.8438
39.7917
49.7396
59.6875
69.6354
79.5833
89.5313
99.4792

Equivalent Angle		Altitude										Batter 12 to 12	
1-16ths	0"	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	Feet
0	.0000												10
1													20
2													30
3													40
4													50
5													60
6													70
7													80
8													90
9													100
10													
11													
12													
13													
14													
15													

14.1054
28.2107
42.3161
56.4214
70.5268
84.6321
98.7375
112.8428
126.9482
141.0536

Hypothénuse

0	.0000	.1179	.2357	.3536	.4714	.5893	.7071	.8250	.9428	1.0607	1.1785	1.2964	10	14.1421
1	.0074	.1252	.2431	.3609	.4788	.5966	.7145	.8323	.9502	1.0680	1.1859	1.3037	20	28.2843
2	.0147	.1326	.2504	.3683	.4861	.6040	.7218	.8397	.9575	1.0754	1.1932	1.3111	30	42.4264
3	.0221	.1399	.2578	.3757	.4935	.6114	.7292	.8471	.9649	1.0828	1.2006	1.3185	40	56.5685
4	.0295	.1473	.2652	.3830	.5009	.6187	.7366	.8544	.9723	1.0901	1.2080	1.3258	50	70.7107
5	.0368	.1547	.2725	.3904	.5082	.6261	.7439	.8618	.9796	1.0975	1.2153	1.3332	60	84.8528
6	.0442	.1620	.2799	.3977	.5156	.6334	.7513	.8692	.9870	1.1049	1.2227	1.3406	70	98.9949
7	.0516	.1694	.2873	.4051	.5230	.6408	.7587	.8765	.9944	1.1122	1.2301	1.3479	80	113.1371
8	.0589	.1768	.2946	.4125	.5303	.6482	.7660	.8839	1.0017	1.1196	1.2374	1.3553	90	127.2792
9	.0663	.1841	.3020	.4198	.5377	.6555	.7734	.8912	1.0091	1.1270	1.2448	1.3627	100	141.4214
10	.0737	.1915	.3094	.4272	.5451	.6629	.7808	.8986	1.0165	1.1343	1.2522	1.3700		
11	.0810	.1989	.3167	.4346	.5524	.6703	.7881	.9060	1.0238	1.1417	1.2595	1.3774		
12	.0884	.2062	.3241	.4419	.5598	.6776	.7955	.9133	1.0312	1.1490	1.2669	1.3848		
13	.0958	.2136	.3315	.4493	.5672	.6850	.8029	.9207	1.0386	1.1564	1.2743	1.3921		
14	.1031	.2210	.3388	.4567	.5745	.6924	.8102	.9281	1.0459	1.1638	1.2816	1.3995		
15	.1105	.2283	.3462	.4640	.5819	.6997	.8176	.9354	1.0533	1.1711	1.2890	1.4068		



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